THE AMERICAN ARCHITECT

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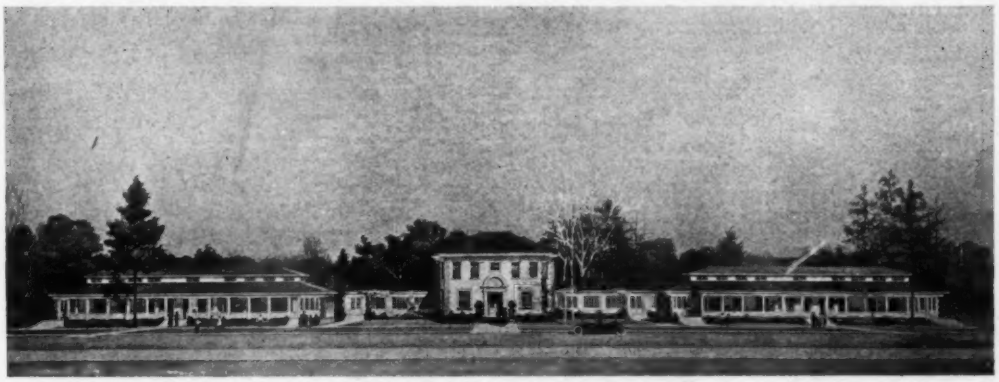

GENERAL VIEW, FROM ARCHITECT'S DRAWING

The Scottish Rite Hospital for Crippled Children, Atlanta, Ga.*

MESSRS. HENTZ, REID & ADLER, *Architects*

THE Scottish Rite Hospital for Crippled Children, in Atlanta, is a splendid example of successful designing for a special use. The plan is well worth careful study as it can be adapted to uses other than in this case. Climatic conditions might make some changes desirable but these would be in minor details. It would be difficult to improve the general scheme.

The hospital is built in the northeastern section of Atlanta. It faces south, is on a main thoroughfare and convenient to street car transportation. The group at present consists of an administration building and two ward buildings. A nurses' residence is immediately adjoining the East Ward. Future extensions will consist of ward buildings 60 feet in the rear of the north of the present ward buildings and connected therewith by corridors. An out-patient building will be constructed adjoining the West Ward building and connected by an extension of the present corridor. This building will be convenient to the street cars.

*For additional illustrations see plate section.

The administration building is two stories high with basement under the rear portion to accommodate the heating plant, storage and laundry. The first floor contains the offices, reception room, store room, elevator and receiving room where the incoming patients are held in quarantine. In the rear are the nurses' and servants' dining rooms, kitchen, pantry and store rooms. In the second floor front are the superintendent's and interns' quarters, laboratory, anaesthesia and recovery rooms. In the rear are the X-ray, plaster, sterilizing, operating, surgeons' wash and nurses' work rooms.

The ward buildings are one story in height, except for a basement under a portion of the West Ward intended for a gymnasium and storage. The gymnasium is temporarily used as an out-patient department. Each ward building contains two wards with a nurses' station beween, from which the nurse can see all patients of the building. On the south front is a porch opening into the wards. Two observation rooms are provided and each has a portion of the porch which can be separated from the ad-

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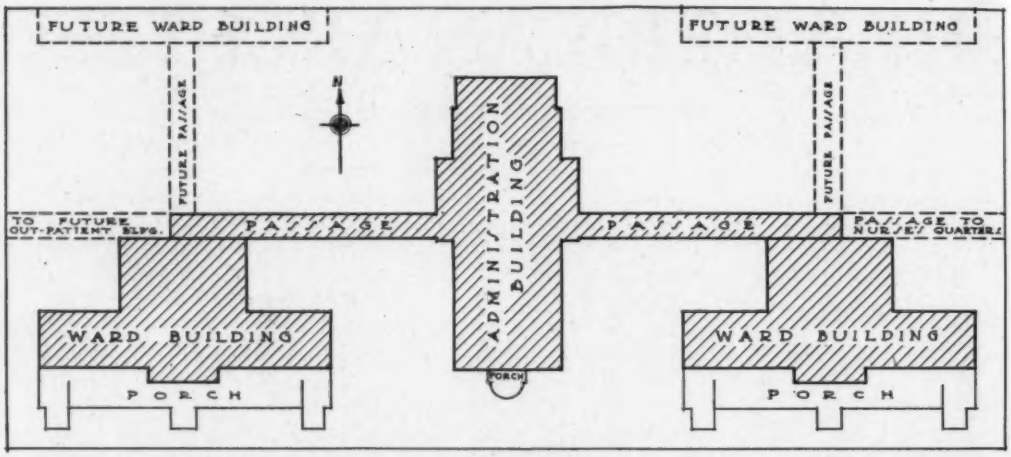
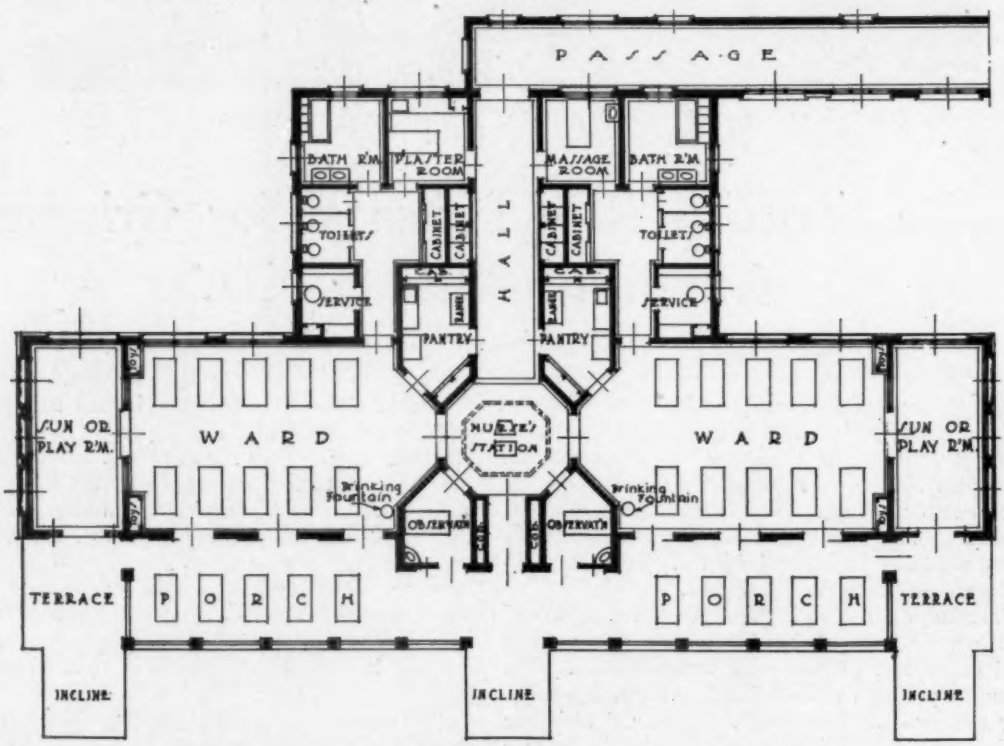


PLOT PLAN

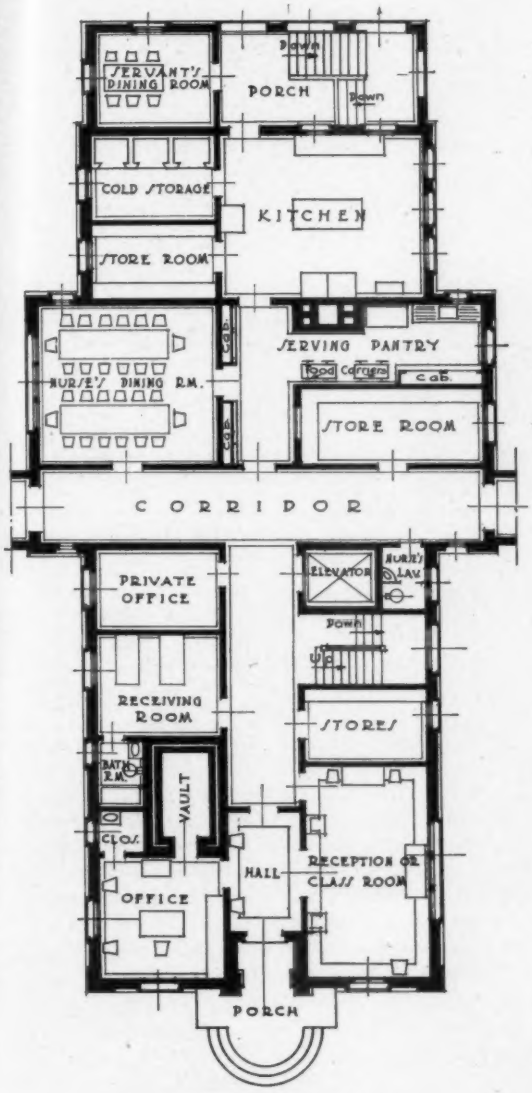


TYPICAL WARD PLAN

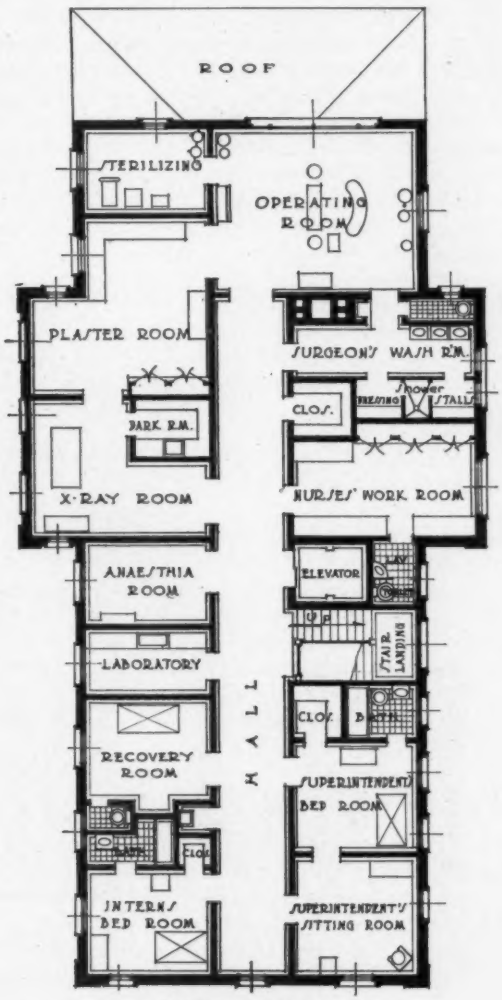
SCOTTISH RITE HOSPITAL FOR CRIPPLED CHILDREN, ATLANTA, GA.

MESSRS. HENTZ, REID & ADLER, *ARCHITECTS*

joining porch by folding, glazed, accordian doors. At each end of this building is a sun or play room. These are furnished with toys, games, books, pianos or Victrolas. Over the wards is a monitor construction which, with the windows and doors on the north and south sides of the wards, furnish ample



FIRST FLOOR PLAN



SECOND FLOOR PLAN

light and ventilation. In the rear are pantries, wash, toilet and bath rooms. There is also a plaster and massage room.

The connecting corridor has a total length of about 235 feet, including that portion included in the administration building. In cold or stormy weather this corridor is used as a place for exercising by patients who can walk. These long corridors are not only necessary for this purpose, but they permit of sufficient space between the buildings to make possible perfect ventilation in hot weather.

All entrances to the ward buildings and corridors are made by easy sloped inclines for the accommodation of the patients who are learing to walk or those in wheeled chairs. The only exterior steps are at the main entrance to the administration building and at the kitchen entrance.

The youngest children are housed in the West Wards, the older children in the East Wards. The toilet fixtures, lockers and other accessories are installed with regard to the age and size of the users. Sixty patients can be accommodated.

This hospital was built, is maintained and operated by the Scottish Rite Consistory of Atlanta. The medical staff, consisting of surgeons, medical practitioners, dentists, occulists and other specialists, serve without pay and are selected for ability and willingness to serve. They are selected without reference to religion, political or fraternal associations. The patients are crippled children whose parents are unable to pay for treatment and they are accepted without reference to nationality, religious, political or fraternal affiliations. They are a remarkably joyous group of children, being well fed, clothed and cared for. They are the subjects of the kind and careful attention of many visitors and others who are interested in their welfare and above all, they have an abiding faith that they will soon stand erect and be whole human beings as it was intended they should.

The remarkable success of this first or parent institution has instigated the undertaking of similar hospitals by other consistories of the Scottish Rite. It was also the prime-mover of an action by the Imperial Council of the Shrine, composed of delegates from the United States and Canada, at Portland, Oregon, in the summer of 1920. The Council set aside $800,000 which is now available, the income from which will annually provide whatever sum may be necessary for the construction, maintenance and operation of hospitals for crippled children. A committee of seven is empowered to procure sites, plans and specifications, execute contracts for construction and do everything needful and desirable to put in operation the things specified in the resolution.

The Atlanta hospital may well be accepted as a model, both in plan and operation, for these future hospitals.

Preliminary Notice—LeBrun Traveling Scholarship Competition

PRELIMINARY NOTICE—LeBRUN TRAVELING SCHOLARSHIP COMPETITION

The Executive Committee of the New York Chapter of the American Institute of Architects, as trustees of the traveling scholarship, founded by Pierre L. LeBrun, announces a competition for the selection of a beneficiary, the programme of which will be issued about November 1, 1920, calling for drawings to be delivered about January 15, 1921.

The following excerpts from the deed of gift explain the award and conditions:

Fourteen hundred dollars—is to be rewarded—to some deserving and meritorious architect or architectural draftsman, resident anywhere in the United States, to aid him in paying the expenses of an European trip, lasting not less than six months.

The selection of the beneficiary of the Scholarship is to be by means of a competition—and the drawings called for—are to be submitted for examination and judgment to a jury consisting of at least three practicing architects, no one of whom is to be connected with any school or atelier for the teaching of architecture. In making the award the jury are to give a full and careful consideration to the records of qualification filed by the competitors as well as to the comparative excellence of the drawings submitted.

Any architect or architectural draftsman, a citizen and resident of the United States, not under twenty-three or over thirty years of age, who shall, for at least three years, have been either engaged in active practice, or employed as an architectural draftsman and who is not and has not been the beneficiary of any other traveling scholarship, shall be eligible to compete.

Every competitor must be nominated by a member of the American Institute of Architects who shall certify in writing that the above conditions are fulfilled, and that in his opinion the competitor is deserving of the scholarship. No member of the Institute shall nominate more than one (1) candidate.

Every competitor must engage to remain, if successful, at least six months abroad and to devote well and truly that length of time to travel and the study of architecture otherwise than by entering any school or atelier or attending lectures, it being intended that the benefit derived from this traveling scholarship shall supplement school or office experience.

The successful competitor shall write from time to time, but not less than once every two months, to the New York Chapter of the American Institute of Architects, giving an account of the employment of his time.

It is requested that those wishing to enter the competition arrange at once for their nomination by a member of the American Institute of Architects, according to the conditions outlined above, which nomination should be sent with his application so that it may be received before November 1, 1920, to Louis Ayres, 50 East 41st Street, New York City, Chairman LeBrun, Scholarship Committee.

The Reconstruction of Northern France

The Northern French Village After the War

By Ralph Fanning

EVEN before the armistice was signed in November, 1918, the French refugees, driven from their old homes by the advance of the enemy, were pushing north and literally staying on the very edges of the battle fields in order to get to their former abodes at the first possible moment. In the Somme they were back with aid to rebuild their destroyed villages in some places when the last big German drive again forced them to flee, losing their little all for a second time. In the Marne there was less disturbance after the first tremendous drive and retreat. Here the inhabitants were able to come back to take up a new life among the still smoking ruins while the big guns were still sounding not far distant, and become well settled in new conditions before hostilities ceased. In much of the Meuse and parts of the Anise and Ardennes there was little opportunity even to ascertain what the homecoming would be while the armies still held complete occupation. So the long-enduring refugees waited and saved and hoped for the glad day when they could leave the none too welcoming towns of their adoption and start back to prepare the old homes for still mobilized sons and husbands and long separated wives and children.

AN INNER GATE AT VERDUN

Long before the government would grant permission or advise it the people were coming back driving and pushing their goods and chattels, carrying treasured household or personal objects which, like ancient Lares and Penates, had accompanied them in their hurried exile. Many a third-class coach on the adventurous though uncertain little "chemin de fer" would deposit its load of old men and black-veiled women with little children and bags and bundles innumerable at some partially wrecked station or at a heap of crumbling stone and tile with only a signboard to mark the site of a pre-war post of some pompous chef de gare. With much scrambling and many a plaintive "Oh, la-la!" the family would at last be "descended" and the little train would hesitatingly venture on its dubious way. The returning refugees would set out through the debris to find what would await them in some little hamlet reached only by a muddy road, a secluded place which in pre-war days had borne for them that all significant name of Home. Even more heartbreaking than the exciting evacuation in the path of the enemy, a scene more tragic and productive of emotion could hardly be imagined than the return of some brave old grandmere with her grandchildren clinging to her mourning weeds. Back she would come to the place where she and her fathers before her had toiled and played through peaceful lives, where her thoughts had ever been turning during the long, cruel years of war, and where her one hope had been to return before she died. Fortunate were those who upon their return fell into the helping hands of some relative who had arrived back first to prepare a welcome, or who came in contact with some busy relief worker first on the spot with supplies and good cheer. To all the homecoming was sad enough, although with all there was the strange joy of being again on home soil even in the dire state in which it was apt to be found.

What a homecoming the devastated regions had

and still have to offer! Able pens have written stirring descriptions of destroyed villages, but only first hand inspection can really give due impressions of what a country may suffer in modern warfare. At first sight one ruined village may seem exactly like every other ruined village, and often they are much the same. In each there is likely to be the same heap after heap of powdered and crumbling stone, of dusty and muddy refuse, of grotesquely wrought fragments of former metal work, the shattered trees and traces of pre-war gardens still trying to offer their bits of color and fragrance. A rusty remains of a broken sewing machine, a battered birdcage, a bit of Louis XV. gilt mirror, add touches of dismal realism. But as one gets to know a village better and to study its possibilities of rehabitation, many a bit of individuality

RHEIMS
SIDE VIEW OF CATHEDRAL TOWER

asserts itself. Here a dubious wall seems indecisive whether to stand or fall. There a well built chimney leans threateningly against the sky. Here a solitary archway stands in the midst of dirt and rubble. There an antique stone stairway climbs ridiculously into space. Here a broken row of trimmed trees marks a former public place. There a floorless room shows a pink wall and marble mantelpiece in whose bottomless grate no hearth fire will ever more burn.

All the villages were not destroyed or molested in the same manner or to an equal degree. As reconstruction problems they offer many different studies. There are well known towns like Amiens, Epernay or Chalons that can show the effects of aeroplane bombs and more or less damage done by shell fire; more contested strongholds like Rheims or Verdun which were systematically shelled or fiercely fought over until hardly a house escaped.

HOTEL DE VILLE, RHEIMS

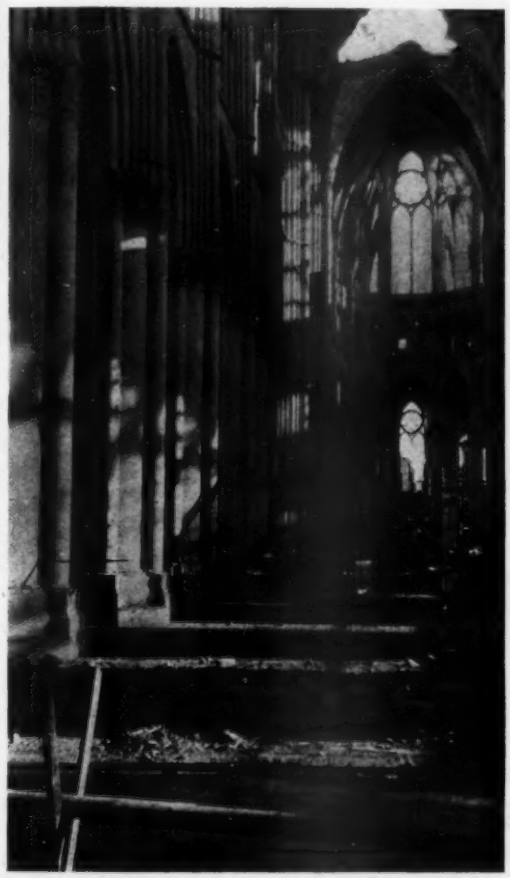
There are towns like Montfaucon in the Meuse or Attigny in the Ardennes to mention as examples among the hundreds that were about as cleanly shot off the face of the earth as human force could do it. As extreme cases, there are such places as Voquois par Varennes where the site of the former village, situated on a hill, now shows nothing but a deep crater many meters across. Oftentimes it was only a case of damaged roofs, broken windows and fallen plaster that needed to be cleaned up before the home was again fit for habitation. Sometimes by propping walls or tar-papering roofs and filling in holes, temporary living quarters could be made.

THE VISIT OF A BOMB REVEALS OLD METHOD OF CONSTRUCTION

Very often in villages swept by fire, the only places in which the returning owners could live were the cellars and caves, excellent for safety if bombs were still falling, but not ideal for a habitation for any animals much higher than rabbits. In other villages still more devastated, the barracks and dugouts left

by the military, were the only shelter to protect the returners.

The evacuated villages within the lines that awaited the refugees' return unmolested by actual battle fire shared none too easy a fate of neglect and foreign occupation. This was also true of the French village far back of the lines where troops were thickly quartered and the owners and craftsmen whose



THE INTERIOR OF THE CATHEDRAL AT RHEIMS

care it had been to attend to their upkeep killed or still with the army. Building materials were exorbitant in price or impossible to obtain, and complicated red tape must be unwound to obtain permission to make any extensive repairs. Labor was not available, and had there been, there was not much incentive to putting on a new roof perhaps for an enemy to sleep under or to drop bombs upon. Even the best of soldiers quartered in a village did not often make careful tenants for the upkeep of house and garden and village improvement, especially soldiers of another color and coneinent. So it could hardly be expected that the little French village of the North could retain much of its pre-war attractiveness, even when it escaped the more disastrous reign of shell and fire.

Naturally the home was the first thing to occupy the thoughts of the returned villager. Unless one had known the refugees in their exile and experienced a few of the trials under which they had to live during the years of war, it is difficult to appreciate what could induce, not to say attract, them back to some of the old homes that they had left, so disheartening were the tasks of reconstruction that awaited them. Streets would have to be cleaned and made passable before the homes could be reached. In this work the military did efficient ser-

RHEIMS

vice, but they usually heaped the debris in great piles by the roadway, and through these the owner had to burrow to reach his house site. If shelter and even crude habitation were left him, there were many handicaps in livelihood that had to be overcome. Some source of food supply had to be assured before stores and markets were started. Wells had to be cleaned or re-excavated. Chickens, rabbits and all live stock had practically all disappeared from the country. The fields and garden sites had to be cleared of barbed wire entanglements and all manner of refuse before an attempt could be made to reclaim them from the four years' growth of weeds and wildflowers that had run riot between the battle fields. Property lines and landmarks had often disappeared, their owners lost or in a distant town, yet very apt to appear with a claim should another party start renovations upon a property where rights of ownership were uncertain. All of

this made for delay and discouragements, as did the tardy distribution of the "dommage de guerre," the money which the French victim ever expected to obtain from his government for war damages. Until such a claim was settled, a cautious man would hesitate about making any reparation for fear of not being able to collect his just dues.

In spite of all the seemingly terrific drawbacks, the people returned as soon as the guns ceased their destructive work—returned to beat their swords into pruning hooks. They continue to return, for to paraphrase John Howard Payne, "be it ever so shattered, there's no place like home."

Beaux-Arts Institute of Design

DIRECTOR OF THE INSTITUTE, LLOYD WARREN.

ARCHITECTURE, WILLIAM F. LAMB
SCULPTURE, JOHN GREGORY
MURAL PAINTING, ERNEST C. PEIXOTTO
INTERIOR DECORATION, ERNEST F. TYLER

Official Notification of Awards—Judgment of April 27, 1920

PROGRAM.

CLASS "B"—IV ANALYTIQUE.

The Committee on Architecture proposes as subject of this Competition:

"A PROBLEM IN SUPERPOSED ORDERS."

In the design of the facade of a two-storied private library the use of superposed orders is required, i. e., each of the two stories shall be expressed in facade by the use of an order, the order of the second story being thus placed above that of the story beneath.

Well known examples of superposition are the Colisseum in Rome, the Library of St. Mark and the Palazzo Grimani, both in Venice, the Palazzo Porto Barbarano in Vicenza, the entrance pavilion of the Luxembourg Palace in Paris, Tiffany's Store in New York City, and the Pittsburgh Athletic Club in Pittsburgh.

The facade called for is the end facade on a side street, the main entrance and entrance being on an avenue running at right angles to the street. It shall have not more than three bays, nor be more than 60 feet in width. The heights of the stories and the choice of the orders to be used are discretionary.

JURY OF AWARD:

R. M. Hood, F. A. Godley, E. V. Meeks, H. O. Milliken, L. S. Butler, D. J. Baum, A. E. Flanagan and A. L. Guptill.

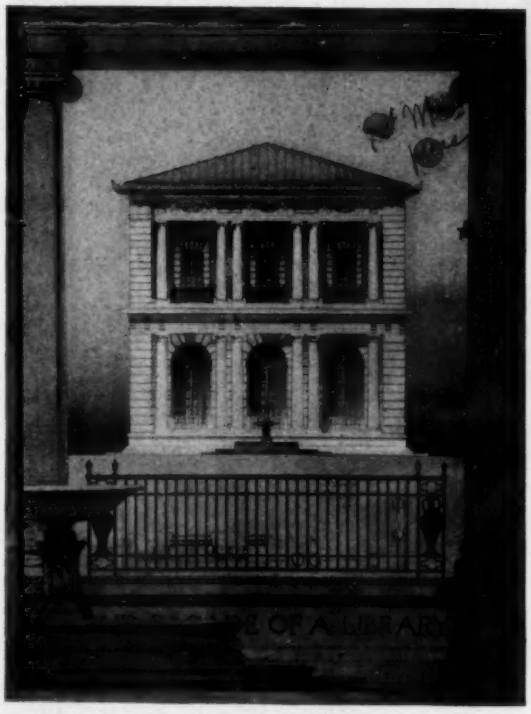
NUMBER OF DRAWINGS SUBMITTED: 116

AWARDS:::

First Mention Placed: S. Grillo, Atelier Corbett-Gugler, N. Y. C.; S. M. Clement and M. L. Colean, Columbia Univ., N. Y. C.; V. M. Reynal and W. Douglas, Yale Univ.-Sch. of Fine Arts, New Haven.

First Mention: A. L. Muller, 263 East 19th street, Brooklyn, N. Y; A B. Butts, Pratt Institute, Brooklyn, N. Y.; J. H. Geissel, "T" Square Club, Phila.; R. E. Tatum, Univ. of Kansas, Lawrence; D. M. Campbell, H. S. Kelly, A. G. Clay and . S. Georges, Yale Univ.-Sch. of Fine Arts, New Haven.

Mention: H. H. Price, G. L. Newman, R. W. Arnold and M. E. Witmer, Boston Archtl. Club, Boston; J. Truden and T. Koch, Atelier Corbett-Cugler, N. Y. C.; M. Grisez, A. H. Gilman, G. Trinin, A. Perrella and A. M. Taylor, Columbia Univ., N. Y. C.; M. Mut, J. D. Mawhinney, F. H. Floyd, G. E. Tucker, H. E. Rudy, E. Hughes, H. W. Anderson, G. O. Schoonover, R. A. McKee, F. K. Wets and R. Berkey, Carnegie Inst. of Technology, Pittsburgh; H. Van Der Lyn and K. Sassagawa, Atelier Hirons, N. Y. C.; W. A. Schabel, K. Steinbach, J. B. Watterson, N. O. Matson, J. E. Miller and L. A. Balicki, John Huntington Poly. Inst., Cleveland; H. Sabransky and W. W. Mezger, Los Angeles Archtl. Club, Los Angeles; R. Gum Lee, R. L. Hedlander, A. O. Angilly, J M. Rosales, H. L. Coggins, D. W. Lockard, A. Kaplan, J. J. Murphy, G. S. Vibberts and D. Markowitz, Pratt Institute, Brooklyn, N. Y.; C. E. Maule, Pennsylvania State College, State College; L. E. McConville and C. K. Kruchten, Atelier Parsons-Chicago Archtl. Club, Chicago; E. S. Young, L. V. Navitsky, J. A. Fletcher and W. C. Chance, "T" Square Club, Phila.; R. B. Bloomgarten and A. E. Evans, Univ. of Kansas, Lawrence; A. A. Shay, E. G. Wendland, Doris Seibert and Rosalie Haas, Univ. of Washington, Seattle; Essie Lipscomb, G. L. Walling, B. H. O'Connor, R. Alsup and H. C. Heath, Univ. of Texas, Austin; C. H. Hinman, Verner



S. M. CLEMENT — COLUMBIA UNIVERSITY
FIRST MENTION PLACED

CLASS "B"—IV ANALYTIQUE—A PROBLEM IN SUPERPOSED ORDERS

Carlson, A. D. Harrington and S. Selway, Univ. of Minnesota, Minneapolis; L. G. Adams, P. E. Isbell, C. B. Lewis and D. Weinstein, Yale Univ.-Sch. of Fine Arts, New Haven; F. Harvey, Atelier Schadler, Reno; A. Wuchterl, Atelier DeGelleke, Milwaukee; E. W. Klawuhn, A. H. Miller and E. Giberson, Thumb Tack Club, Detroit; T. S. Browne, George Washington Univ., Wash., D. C.; J. H. Geering, San Francisco Archtl. Club, San Francisco.

H. C.: R. W. Watson, Univ. of Kansas, Lawrence.

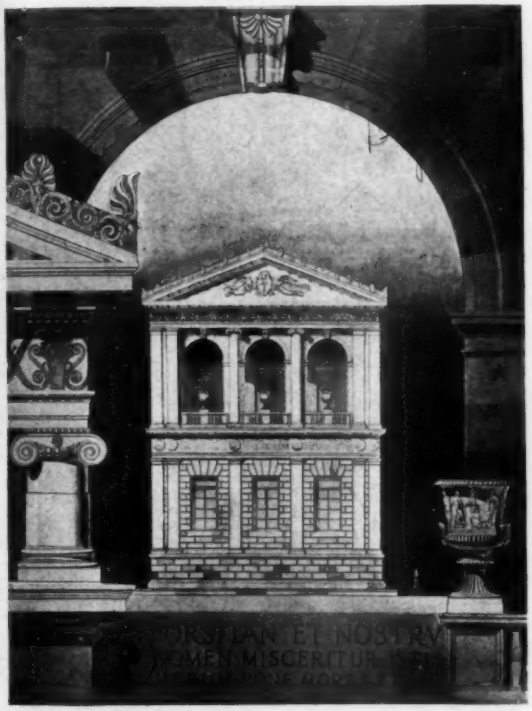
PROGRAM.

CLASS "B"—IV PROJET.

The Committee on Architecture proposes as subject of this Competition:

"A CLOCK TOWER ON A COLLEGE CAMPUS."

A clock tower is to stand on the edge of a college campus, telling time to the students and to the people in the adjoining town, for whom it will form a land-mark. It may if desired contain a chime of bells.



S. GRILLO ATELIER CORBET GUGLER
FIRST MENTION PLACED

CLASS "B"—IV ANALYTIQUE—A PROBLEM IN SUPERPOSED ORDERS

To be visible above the trees, the clock-dials are to be centered at least 150 feet above the ground. At the foot of the tower, or forming its base, is an open-air loggia, so disposed with relation to the campus as to form the nucleus and gathering place for student activities, open-air meetings and celebrations of victories on the athletic field. If the loggia is so arranged as to admit of the placing of statues, busts, placques and inscriptions, it will in time be complete as a memorial to the student life of the college.

This composition, exclusive of terraces, is not to exceed 125 feet in its greatest horizontal dimension.

JURY OF AWARD:

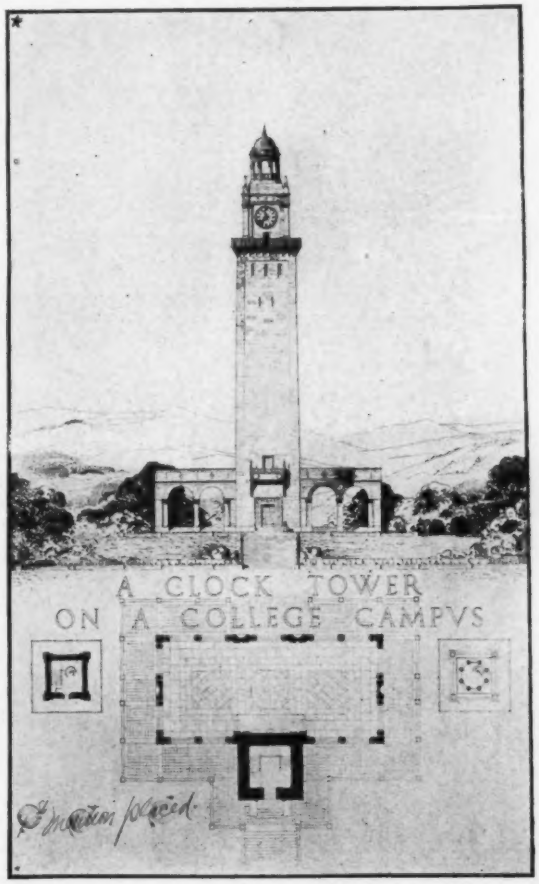
B. W. Morris, W. Warren, J. Oakman, H. A. Boehm, Prof. Ludlow, H. W. Corbett, F. C. Hirons, J. F. Harbeson, D. Candler and M. B. Stout

NUMBER OF DRAWINGS SUBMITTED: Ninety-six

AWARDS:

First Mentioned Placed: R. B. Schell, L. H. Rank and A. W. Chesterman, Carnegie Inst. of Technology, Pittsburgh; H. W. Gill and Helen M. Gail, Columbia Univ., N. Y. C.; R. DeGhetto, Atelier Hirons, N. Y. C.

First Mention: J. E. Linnett and O. P. Morton, Boston Archtl. Club, Boston; R. M. Crosby, H. T. Aspinwall, B. Dierks, D. H. Bodin, D. H. Oertell, L. E. Considine, M. C. Drebin and R. D. Devney, Carnegie Inst. of Technology, Pittsburgh; W. A. Strong, K. Matsunoi, F. W. Brown and R. S. Buck, Jr., Columbia Univ., N. Y. C.; G. W. Green, Atelier Corbett-Gugler, N. Y. C.; J. W. Walker, Jr.,



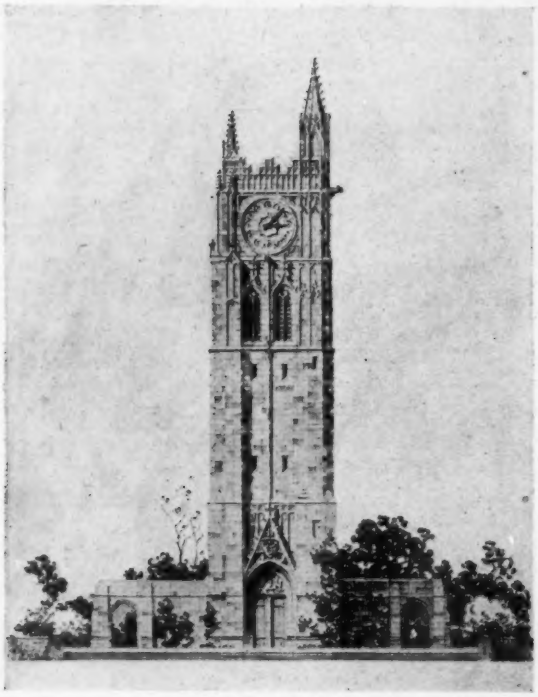
HELEN M. GAIL COLUMBIA UNIVERSITY
FIRST MENTION PLACED

CLASS "B"—IV PROJET

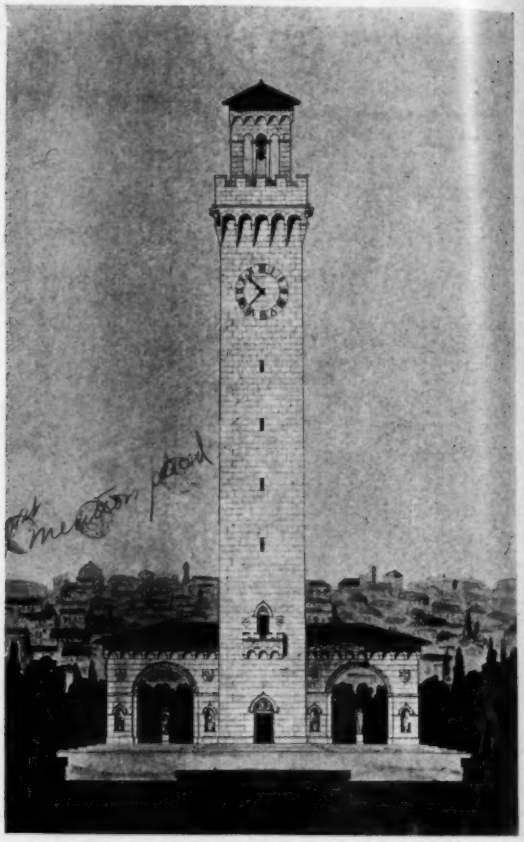
Georgia School of Technology, Atlanta; W. S. Boice, Atelier Hirons, N. Y. C.; C. Stecke, Patron-R. M. Hood, N. Y. C.; H. H Weeks, San Francisco Archtl. Club, San Francisco; W. J. Rankin and R. L. Goldberg, "T" Square Club, Phila.

Mention: C. F. Wright, Boston Archl. Club, Boston; G. H. Jamison, H. W. Stone, L. L. Nusbaum, J. H. Todd,

(*Concluded on page 363*)



R. B. SCHELL CARNEGIE INSTITUTE OF TECHNOLOGY
FIRST MENTION PLACED



H. W. GILL COLUMBIA UNIVERSITY
FIRST MENTION PLACED

CLASS "B"—IV PROJET
STUDENT WORK. BEAUX-ART INSTITUTE OF DESIGN

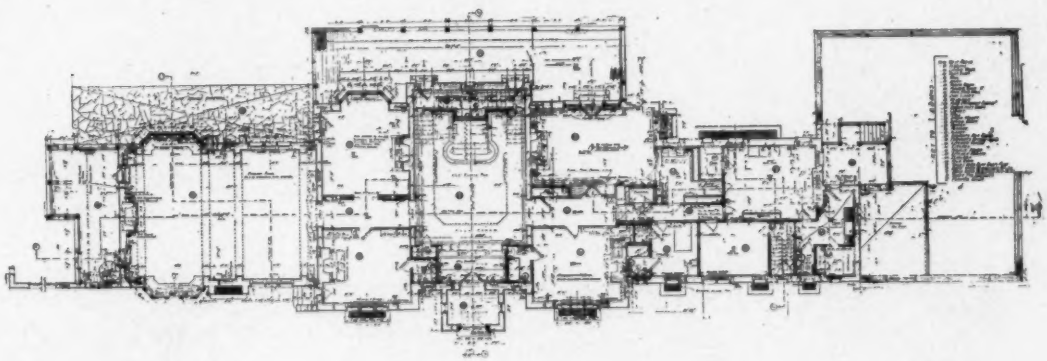
House of Albert G. Milbank, Esq.

HUNTINGTON, LONG ISLAND, NEW YORK

MR. JOHN MEAD HOWELLS, *Architect*

MOST American country houses are so very new in all their elements that they are generally not fit to be photographed until they are so old as to be no longer regarded as a desirable novelty by architectural publications. The Albert G. Milbank Estate at Lloyd's Harbor, Huntington, L. I., although lately finished has already taken a certain aspect of maturity from the remarkably large tree and especially large vine planting by Mr. Milbank's head gardener. The disposition of the land where this house was to be placed showed a sharp bluff to the water of Lloyd's Harbor. Along the top of this bluff was a heavily wooded strip about 100 feet wide, and against these woods the house was set. This left the approach to the house through a straight level field; a driveway between turf bands and hedges. The driveway ends in a circle with 150 foot sweep in front of the house. In the centre of the circle is a carp pool 80 feet in diameter, and facing the house on the opposite side of the circle are two walled gardens; the walls follow the sweep of the circular drive and are built of the same material as the house.

The house itself is very heavily constructed of brick, with a stucco surface and fireproof floors. Many of the building materials were made for this house, as for instance, the flat English roofing tile and various surfaces of purple and green. The house is an old English type, more like the simple houses of the Cotswold district than the imposing cut stone Tudor type. The approach to the house is through the rather distant wood and by a pond, but the entrance to the home land proper passes between gate houses and semi-circular entrance grills. Just inside of this, as you pass down the drive, you find yourself inside a sort of service court about 300 feet wide. At the extreme right of this you see the stable group and at the extreme left the garage group which are similarly arranged. This arrangement of entrance and disposition of service buildings is more like that used in the later French chateaux, and was the natural solution of conditions.



Eastern Portico, St. Paul's Chapel, New York

McBEAN, *Architect*

(See reproduction of the original drawing by O. R. Eggers in this issue)

A MORE general view of St. Paul's and a brief account has been published in a preceding issue. The view that Mr. Eggers here presents is one looking north along Broadway from a point where Fulton Street crosses.

The fine architectural expression of this church may here be studied more in detail. The columns of this portico stand as will be seen, at the very edge of the sidewalk line. Here six days in every week hundreds of thousands of people pass, but neither the roar of traffic nor the restlessness of the city's populace can destroy the calm of this enclosure.

On every Sunday, as for a century past, the religious services call to this chapel people whose families for generations have worshipped at its altar and whose ancestors lie buried in its churchyard, while daily, in its interior, hallowed by many momentous observances devout workers of the neighborhood find a restful spot for quiet meditation.

Northern and Southern Estates Change Hands

There is a sort of hands over the land pleasantry going on between New England and Virginia, the Old Dominion. Wealthy New England people are acquiring the great estates in Virginia that have been abandoned virtually for many years through the inability of the "first families." so called, to maintain them. The civil war made the owners poor. These great estates have been discovered lately by the wealthy of the North and are being bought right and left and restored to their former grandeur. The Weld family, of Boston, has acquired the great estate called Temple Gwathmeys, near Warrenton, and Larz Anderson, also of Boston, has recently acquired a great estate in Virginia despite his beautiful possessions in Brookline. The estates may be made exceedingly productive if cultivated, and many is the Westerner who knows farm conditions, who has wondered that the Virginians were not making their properties bloom like gardens and flourish otherwise, contributing to the wealth of the owners and that of the nation.

But the Virginians seem to have lost energy in this direction or were perhaps too proud to stoop to the hard work necessary to give impetus to a restoration of the estates. They have preferred in the main to wander and let the old houses fall into decay. The first instance of the discovery of old estates in Virginia was by a wealthy man from Chicago, who found Gunston Hall an attractive spot, overlooking the Potomac, not far away from Mount Vernon. It appeared a ruin, but he restored it to its original grandeur, discovering old treasures in wall decorations under the many layers of wall paper that had been put over the original. He showed what could be done with an old estate and the original home of the Masons of Virginia is as grand as ever it was. The Welds are to spend three millions in improving the estate they purchased. A part of Monticello, the Jefferson estate, has also been acquired by a wealthy man and is to be improved. These things are set down in a recent issue of the New Bedford *Times*.

In a sense the restoration and revamping of the estates so that they live again and are fruitful is to be regretted. There is a charm in abandoned estates. Ruins appeal to the romantic side of many people. And there has been much romance connected with old Virginia estates, with their slaves and aristocratic pretensions, their hunts, politics and duels.

The war laid waste their estates and exhausted their progeny. The glamour of it all is one reason why the estates are being sought. The flavor of old times is left in Virginia, the grand manner and style of the "Old First Families." While esteeming themselves as of old, they are not averse to welcoming the strangers from the North, gold laden though they be rather than surcharged with blue blood. So in this year of 1920, the three hundredth anniversay of the landing of the Pilgrims, finds some New England families moving to the country of the men who established Jamestown in 1607. It is, of course, not to be understood that the New Englanders are to be permanent settlers in old Virginia. They seek there, literally, happy hunting grounds, just as the people of the South formerly came to New England to spend the warm period.

EASTERN PORTICO, ST. PAUL'S CHAPEL, NEW YORK
THE AMERICAN ARCHITECT Series of Early American Architecture

EDITORIAL

A National Construction Congress

UNDOUBTEDLY one of the most important things to be accomplished at this time in the building construction fields is a better and more intimate arrangement between the employing and working elements. It is therefore of interest to learn that the newly organized National Congress, based somewhat along the lines of the Parliament of the Building Trades in England, has taken steps to form a permanent establishment of a building and construction congress to give continuity to these nationally beneficial objects.

An organization committee has been formed to take up this important question. It is to meet in Chicago on September 27. The representatives are from all of the many elements of the building and construction industries and its efforts, as outlined in a preliminary notice, would seem to be along the most practical line and one that would insure some tangible results.

There can be no doubt that the history of civilization in all countries is closely linked with the periods of prosperity where the greatest building activity has been shown. One, if not the principal, cause of the present chaotic condition in the industry that is now being watched is that the general stagnation is very seriously retarding our national growth. If this is true, then the vital thing would be to devise such methods as will give the proper impetus to construction all over this country and remove those retarding influences that are now seriously impeding the normal growth of building.

THE committee, in its report, has stated that it is its belief that acceleration cannot be solved from the standpoint of any single element or by attention to local problems unless there is concurrence generally over the country as to the good purpose of such action. This committee, therefore, will very wisely take up and carefully study the relations of the various elements of building interests which enter into building and construction activities, and in this way arrive at a solution that will not specifically accelerate activity in any one location, but will have a nation-wide influence in correcting the evils that so seriously hamper our building progress.

It is gratifying to note that in the organization of this committee an architect is at its head and that the representation of the practical elements in every other field of building, engineering, construction, contracting, large manufacturers of material and, in fact, all of the various complex factors that contribute to the building industry are very completely represented. Mr. Robert D. Kohn, architect, of New York, is chairman pro tem, and Mr. Wm. Couper, secretary.

THE AMERICAN ARCHITECT has, from time to time, referred to the inactivity of members of the profession in vital matters of this character and it is therefore a great pleasure to be able to record that in this important committee, which will undoubtedly go a long way in solving our construction problems, there is a satisfactory proportion of architects and engineers among its members.

More Transportation

NOW that the railroads are back again in the hands of their owners and they have been able to take account of stock of the deterioration that occurred during Government control, it is natural to expect that the Advisory Committee of the Association of Railway Executives would be able after a thorough examination of conditions, to suggest a means that would promptly increase the transportation mileage, based on such facilities as are available and that they would not wait that interminable period until they could build a sufficient quantity of cars to accomplish that purpose.

As referred to in the economic section of this issue, it is proposed to increase the loading of available cars to a maximum carrying capacity and by this means increase the tonnage to a very considerable degree. The Advisory Committee have now announced that the efforts in this increase are seriously handicapped by the very large proportion of bad order cars and that steps will be at once taken to put these cars in such condition that they will

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be able to carry a full load and stand the wear of almost constant use.

When federal control began there were in use about 2,260,000 freight cars, of which not quite 6 per cent. were reported in bad order. At the end of federal control the number of cars had been increased about 100,000, of which not quite 8 per cent. were in bad order.

The cure of this situation is one of the first and most important problems in transportation. Naturally this cure is an expensive one on account of the present high prices of material, but there is assurance that it can be done and it is believed that within a reasonable length of time the cars available for transportation of all material will be so largely increased as to afford a very measurable relief. This will be cheering news to everyone in the building industries, as will, also, the word that comes from the railroad companies that they are speeding up these repairs to the greatest possible degree and that each succeeding month will mark a more satisfactory condition.

A Condition and Its Cure

FEW people aside from those who are directly interested realize the serious and helpless condition in which the building situation is today. Millions of dollars' worth of building material, contracted for in the belief that it could be used in building operations (which everyone felt sure would by this time be actively going forward) now lies in the mills and yards of dealers, the orders for it having been cancelled.

It is exasperating to read the theoretical reasoning of many writers in the daily and technical press. We learn from these that the real cause of delay is lack of transportation, labor unrest, shortage of material or injudicious meddling of state legislatures. These are none of them major causes, although all of them tend to complicate the situation. It is the unwillingness of banks to make loans that is the real cause.

It may be well to make some examination into the underlying reasons for this unwillingness, and having arrived at a definite conclusion endeavor to prescribe a remedy.

It was not because of any of the factors of transportation, labor troubles or material shortage that the banks have stopped making loans. It was because they could not dispose of these real estate mortgages to their customers. This condition is largely due to the Federal Income Tax which with the heavy surtax on the larger incomes makes mortgage buying at 6 per cent. absolutely impossible.

It therefore becomes the privilege as it is also the duty of every one connected with the building industry who understands the situation and whose livelihood depends on building activity, to urge to the full extent of his power such legislation as will release vast sums of money for home building. Tax exemption for real estate mortgages is the one big thing that will hasten a cure. Every architect should work early and late to secure passage of an exemption law. He should write to his Congressman and to his Senator setting forth the need of haste in action.

It is going to take a large and well directed propaganda to put the urgency of the present building situation before our National legislators. Few of them realize how helpless is the present situation. Make it plain that prompt action is desired and if it is withheld that political support will be transferred to a more intelligent representation and the battle will be won.

We shall more fully discuss this situation in the building field in a later issue. Facts and figures will be set down that will be valuable in the propaganda that is urged and in which every architect should take a prominent and active part.

SEPTEMBER 15, 1920 THE AMERICAN ARCHITECT VOL. CXVIII, No. 2334

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HOUSE OF A. G. MILBANK, HUNTINGTON, LONG ISLAND
JOHN MEAD HOWELLS, *ARCHITECT*

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JOHN MEAD HOWELLS, *ARCHITECT*

HOUSE OF A. G. MILBANK, HUNTINGTON, LONG ISLAND
JOHN MEAD HOWELLS, *ARCHITECT*

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LIVING ROOM

HOUSE OF A. G. MILBANK, HUNTINGTON, LONG ISLAND

JOHN MEAD HOWELLS, *ARCHITECT*

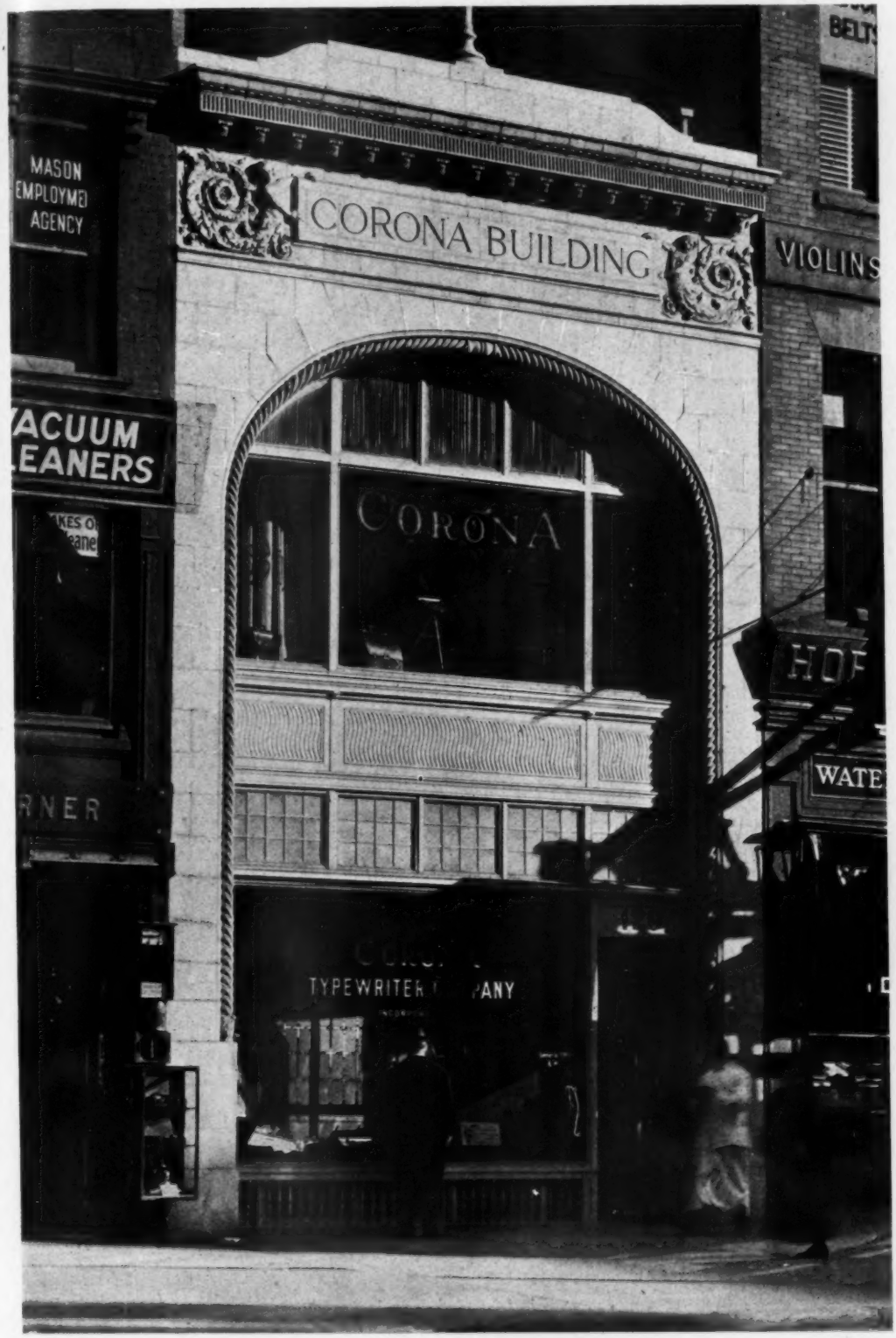
STAIRCASE

HALL

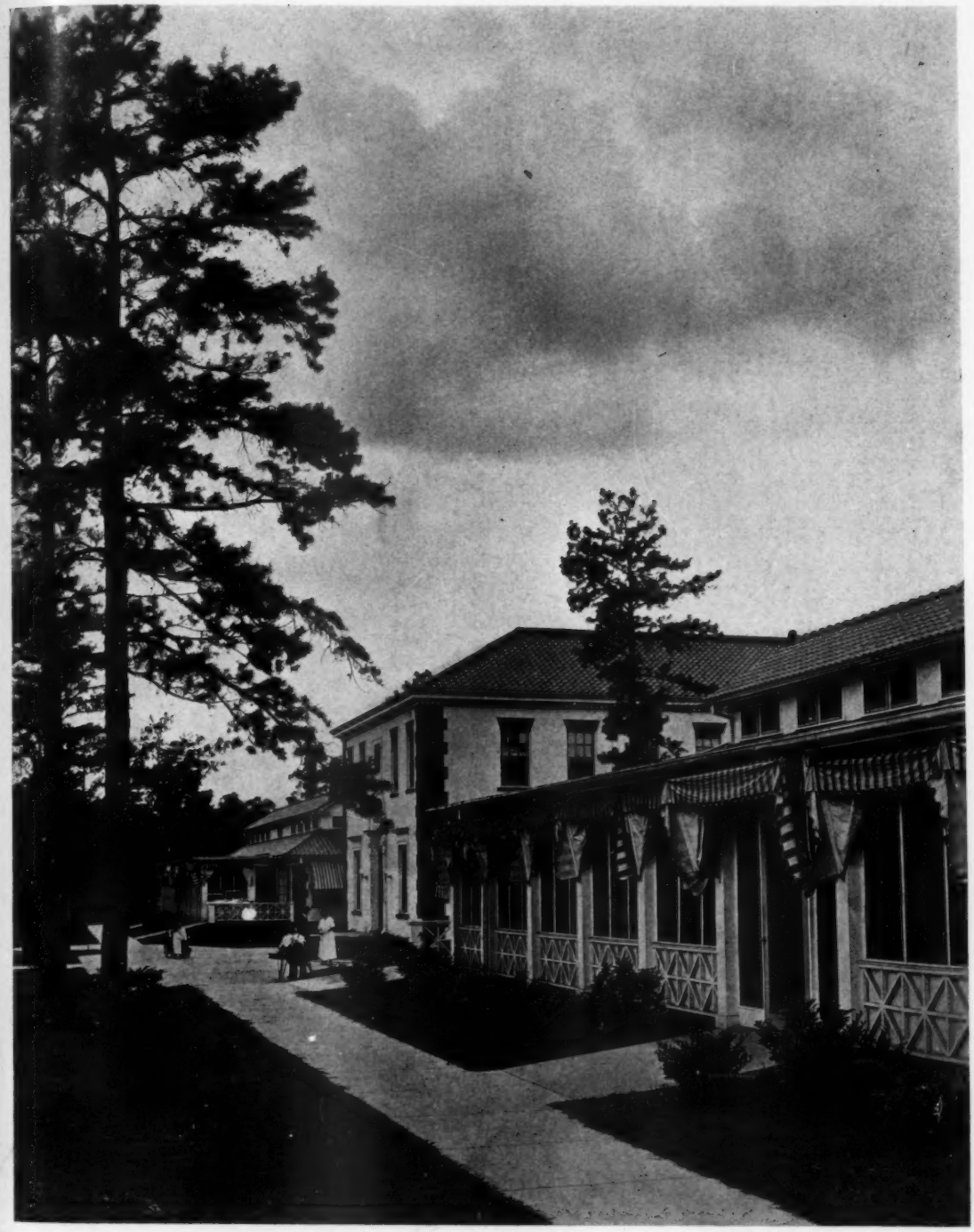
HOUSE OF A. G. MILBANK, HUNTINGTON, LONG ISLAND

JOHN MEAD HOWELLS, *ARCHITECT*

HORACE WHITE MEMORIAL FOR THE CITY OF BELOIT, WIS.
JOHN MEAD HOWELLS, *ARCHITECT*. F. M. L. TONNETTI, *SCULPTOR*



CORONA BUILDING, 42D STREET, NEW YORK
JOHN MEAD HOWELLS, *ARCHITECT*



SCOTTISH RITE HOSPITAL FOR CRIPPLED CHILDREN, ATLANTA, GA.
HENTZ, REID & ADLER, *ARCHITECTS*
(For descriptive article, see text)

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GENERAL VIEW

EAST WARD BUILDING

SCOTTISH RITE HOSPITAL FOR CRIPPLED CHILDREN, ATLANTA, GA.

HENTZ, REID & ADLER, *ARCHITECTS*

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LIBRARY

ADMINISTRATION BUILDING

VIEW IN WARD, LOOKING TOWARD NURSES' STATION, OPENINGS TO PORCH ON THE RIGHT
HENTZ, REID & ADLER, *ARCHITECTS*

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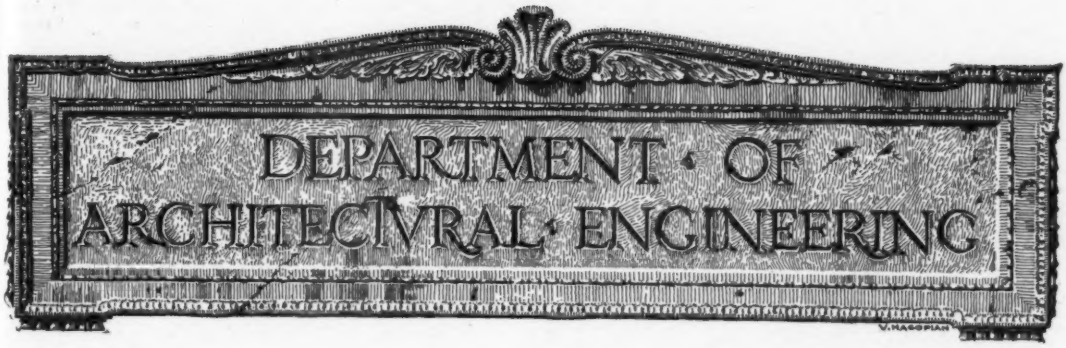

The Revolving Door, Its Characteristics, Design and Installation

Part II

IN this article certain practical considerations in the design, selection and installation of the revolving door will be treated.

Since the revolving door will constitute both entrance and exit for the building, it is necessary, in order to determine the number of such doors required, that the probable traffic shall first be estimated. As a rule this can be done with a reasonable degree of accuracy. Buildings may be roughly divided into two classes for the purpose of traffic regulations—those in which peak conditions occur at definite, stated periods, when the occupants of the building regularly enter and leave, such as office buildings, schools, etc., and those in which there is a constant traffic of transients or visitors throughout the entire day, as, for instance, in hotels, banks and libraries.

REVOLVING DOOR USED IN LARGE OPENING

Space on Each Side and Above Revolving Door Filled With Glass Panels. Note the Heavy Exterior Doors Which Are Closed and Locked after Banking Hours.

In the former an estimate can be made of the probable number of occupants on a "floor area" basis, using some reasonable ratio. The New York Building code provides as follows:

When the number of persons to be accommodated by the exits is not stated in the application for a permit to construct, such number of persons within any floor area shall be taken, according to the use of such floor area, as one person:

a—for every ten square feet in dance halls, lodge rooms and places of assembly;

b—for every fifteen square feet in court rooms, restaurants and classrooms in schools and colleges;

c—for every twenty-five square feet in stores, markets and lodging houses and reading rooms;

d—for every thirty-two square feet in workrooms;

e—for every fifty square feet in offices and show rooms.

f—for every one hundred square feet in hospitals, hotels, asylums, furnished room houses and other residence buildings.

Let us assume a 12-story office building, with 5-000 square feet floor area per story, the ground story to be occupied as stores with direct independent egress to the street. Then the number of persons to be accommodated by the street entrance, on the basis of the New York Code would be 100 persons per story or 1,100 persons above the ground floor. While peak conditions may vary in different localities, it is safe to assume that in a large city 60 per cent. of the occupants would enter the building within a fifteen minute period in the morning, as, for

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instance, from 9 a. m. to 9:15 a. m. In other words, the entrance for the building under consideration must accommodate 660 persons in 15 minutes, or 44 persons per minute.

In some cases it might be found that 90 per cent. of the occupants would leave the building in a similar period at the close of the working day. For such a condition the exit would have to take care of a traffic of 990 persons in 15 minutes, or 66 persons per minute.

In a public building it should be possible to make a close estimate of the number of persons which would enter and leave during a given period, and then provide exits slightly in excess of this number.

Much valuable data can be obtained by making actual counts of those entering and leaving buildings of similar character to one which may be planned, and properly analyzing the results.

Below is given a tabulation of counts made in six New York City buildings of varying character of occupancy.

Number of Persons Passing Through Revolving Doors

Name of Building and Entrance	Start	Finish			Maximum persons in one direction
Lunch hour traffic	M.	P.M.	In	Out	per minute
World building, main entrance	12	12:15	130	190	13
" " " "	12	12:30	227	308	
" " " "	12	12:45	355	444	
" " " "	12	1:00	496	629	
Boreel building.....	12	12:15	82	100	7
" "	12	12:30	163	197	
" "	12	12:45	231	274	
" "	12	1:00	337	363	
" "	12	1:15	406	448	
" "	12	1:30	476	524	
Transient traffic due to general business transactions	P.M.	P.M.			
Manhattan Life building.....	3	3:15	164	128	11
" " "	3	3:30	311	238	
" " "	3	3:45	453	251	
" " "	3	4:00	559	432	
American Tract Society Bldg.	2	2:15	160	172	11
" " " "	2	2:30	311	310	
" " " "	2	2:45	416	421	
" " " "	2	3:00	533	516	
Commercial Cable building, Broad street entrance.....	2	2:15	276	291	19
" " "	2	2:30	551	545	
" " "	2	2:45	787	777	
" " "	2	3:00	1018	1034	
" " "	2	3:15	1253	1304	
" " "	2	3:30	1520	1521	
Bank of Commerce building..	2	2:15	298	200	20
" " " " ..	2	2:30	502	345	
" " " " ..	2	2:45	748	533	
" " " " ..	2	3:00	961	679	

It will be noted that the maximum traffic shown is 20 persons per minute. Some of these buildings have several entrances, and in laying out the entrances in such a case, an assumption must be made as to the probable distribution of traffic among the several entrances. For instance, the Equitable Building has exits leading to four streets, yet the greater number of persons entering and leaving the building use the Broadway entrance. This was to be expected, since Broadway is the main street on which the structure fronts.

REVOLVING doors are manufactured in varying sizes and styles, ranging from a three and four wing 6-foot diameter door to a six wing, power driven, 8-foot diameter door. The most practical, and by far the best door to install under most conditions

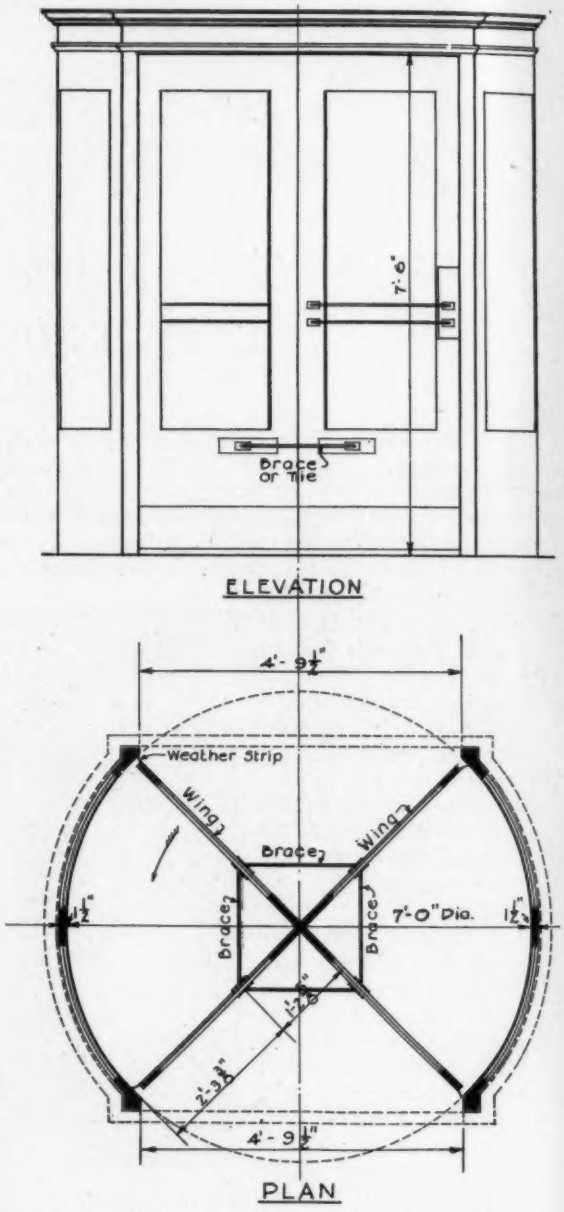


FIG. 1. STANDARD 7 FT. DIA. REVOLVING DOOR

is a four wing, 7-foot diameter door, the dimensions of which are given in Fig. 1. Such a door will take care of a traffic of 40 persons per minute, which is

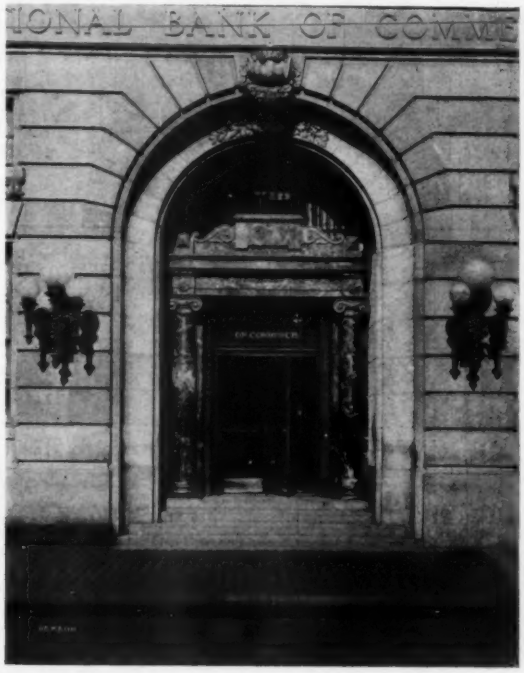
ample for all average conditions. Preferably a panic proof or automatically collapsible type should be selected. Where the traffic is small it may be felt that a 6-foot diameter door would prove adequate. This smaller size door will only accommodate approximately 50 per cent. of the traffic of the larger door. This is mainly due to the cramped position that those using it assume when passing through, and the consequent reduced velocity. It should be noted, that while each wing of a 6-foot diameter door has a width of 3 feet, yet the unobstructed space from brace to outer edge is only 1 foot 10 inches, whereas in the 7-foot door this is over 2 feet, 3 inches, permitting much freer movement on the part of those using the door.

A revolving door may be placed either within or without the entrance doorway, or centered in the opening. Various arrangements are shown in Fig. 2. In most cases the first floor is slightly above the street level, necessitating the use of steps. The first riser should not be less than 14 inches distant from the path of the revolving wings; 18 inches is preferable. When steps are again encountered after entering the building, the first riser should be kept at least 24 inches from the door. See Fig. 2.

AN APARTMENT HOUSE INSTALLATION
This Building Is So Located as to Be Exposed to Very Severe Winds

It must be remembered that where the revolving door projects outside the doorway it is necessary to provide a weather proof roof, this increasing the cost. However, this is not a serious item.

Where space permits, it is always advisable to place an auxiliary swinging door in close proximity to the revolving door. This need not be more than



MAIN ENTRANCE TO A BANK BUILDING

3 feet wide. For department stores, and other classes of buildings, where it is possible that children accompanied by adults or persons unfamiliar with the operation of revolving doors may enter, auxiliary swinging doors, adjacent to the revolving door, should always be provided. This gives a choice to any who may prefer using the swinging door. In this respect, the New York City regulations now provide:

Department Stores. Type A (panic-proof) revolving doors hereafter installed shall be accepted in exit doorways from department stores provided doorways aggregating at least fifty per cent. of the legal required width, equipped with swinging doors, are installed, and one or more such outwardly swinging doors are located immediately adjacent to each revolving door. Such swinging doors need not be equipped with handles on the outside, and shall have a minimum clear width of three feet.

New Revolving Doors. In buildings other than assembly halls, asylums, auditoriums, churches, dance halls, department stores, hospitals, motion picture theatres, schools and theatres, coming under the exit provisions of the building code, doorways serving as required exits may hereafter be equipped with Type A revolving doors, or with Type B (rigid-brace) revolving

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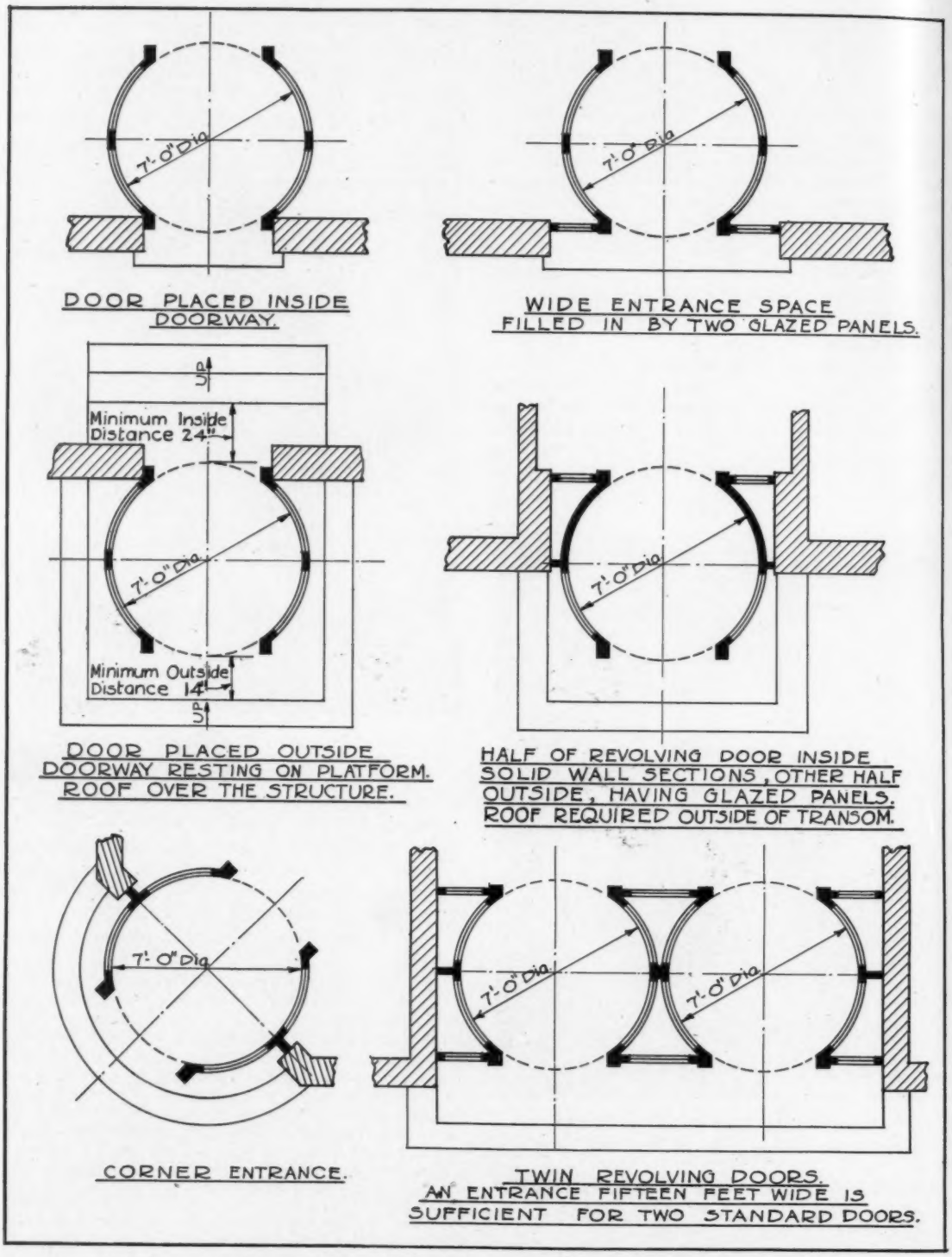
7'-0" Dia.
DOOR PLACED INSIDE DOORWAY.
7'-0" Dia.
WIDE ENTRANCE SPACE FILLED IN BY TWO GLAZED PANELS.
SP
Minimum Inside Distance 24"
7'-0" Dia.
Minimum Outside Distance 14"
SP
DOOR PLACED OUTSIDE DOORWAY RESTING ON PLATFORM. ROOF OVER THE STRUCTURE.
7'-0" Dia.
HALF OF REVOLVING DOOR INSIDE SOLID WALL SECTIONS, OTHER HALF OUTSIDE, HAVING GLAZED PANELS. ROOF REQUIRED OUTSIDE OF TRANSOM.
7'-0" Dia.
CORNER ENTRANCE.
7'-0" Dia.
7'-0" Dia.
TWIN REVOLVING DOORS. AN ENTRANCE FIFTEEN FEET WIDE IS SUFFICIENT FOR TWO STANDARD DOORS.

FIG. 2. VARIOUS ENTRANCE ARRANGEMENTS FOR REVOLVING DOOR INSTALLATIONS

doors, provided such revolving doors, not exceeding three in a unit, shall have an outwardly swinging door at least three feet wide located immediately adjacent thereto.

The accompanying illustrations show revolving doors installed in several types of buildings.

Investigation has shown that the revolving door is particularly popular for bank buildings. Since many bank robberies have occurred in which the lone teller and sometimes his assistants working after hours have been forced to throw up their hands, while the thieves gathered and made off with their booty, a special electrically controlled revolving door locking device has been developed, which can be operated by either hand or foot switch from any desired location. It is customary to have the control made possible from several locations. With such a device installed, a bank teller forced to throw up his hands can automatically lock the revolving door by pressing a foot switch, and at the same time cause the burglar

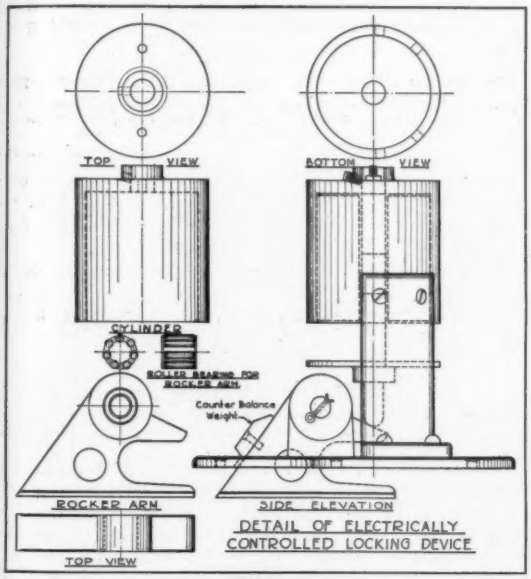

FIG. 3

alarm to operate. The thieves, having completed their "clean up" and unaware of what has secretly taken place, will find their usual egress blocked, and before being able to break plate glass windows and effect an escape, would probably be captured. Recently the operation of such a device installed in a New York City bank prevented the escape of burglars. Since this episode received much notice in the public press it has led to much inquiry on the part of other banks relative to this electrically controlled lock.

Doors provided with this device should have the panels in the wings glazed with wired glass. Such a device is illustrated in Figs. 3 and 4. The lock proper consists essentially of a solenoid. Throwing the operating switch raises the metal core, thus releasing the catch, which engages the nearest wing of the revolving door, when exit is attempted by revolving it.

When a panic-proof type of door is installed four

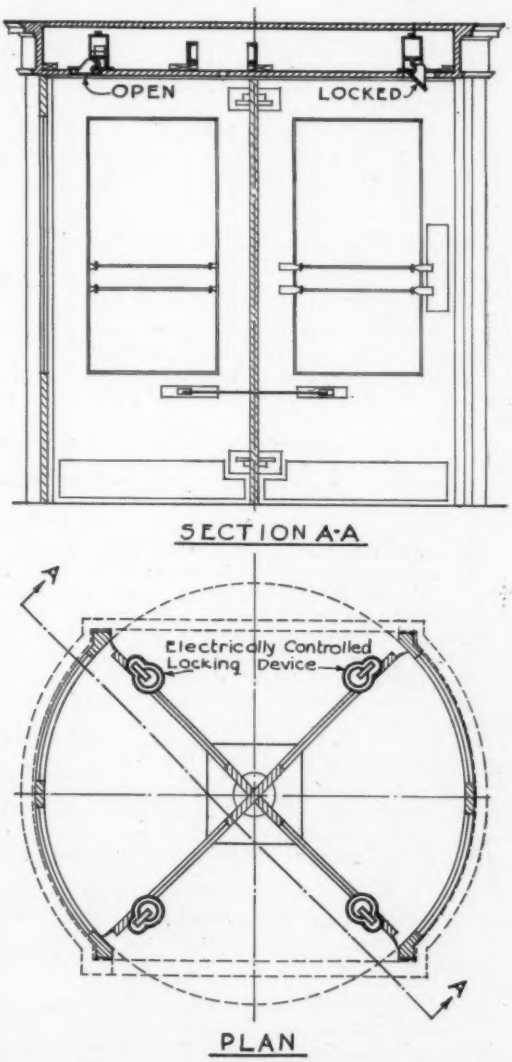

FIG. 4. ARRANGEMENT OF ELECTRICALLY CONTROLLED LOCKING DEVICE FOR PANIC-PROOF DOOR

such locks are necessary—one for each wing—since the stopping of a single wing would still permit exit by collapsing the remaining wings.

It is hoped that the data presented in this and the preceding article will prove of value to architects designing buildings for which the revolving door is adapted.

Decisions Rendered by the National Board for Jurisdictional Awards in the Building Industry*

Air Coolers, Air Washers and Blowers, Consisting of the Assembling of Sheet Metal and Pipe Fitting

[Subject of dispute between Amalgamated Sheet Metal Workers' International Alliance and the United Association of Plumbers and Steamfitters.]

The following agreement between the Amalgamated Sheet Metal Workers' International Alliance and the United Association of Plumbers and Steamfitters was confirmed:

September 9, 1918.

The undersigned committee, appointed by the general presidents of their respective international organizations, name, the United Association of Plumbers, Steamfitters and Steamfitters' Helpers, and the Amalgamated Sheet Metal Workers International Alliance, held joint conferences in the City of New York, beginning September 5, 1918, in an endeavor to arrive at an agreement concerning air washers, fans, blowers, the housing of same, and the pipe fitting on same.

After lengthy meetings participated by all of the undersigned, representing the Joint Conference Committee of both international unions, the following has been agreed to:

Section 1. That all sheet metal work of No. 10 gauge, or lighter, when used on air washers, fans, blowers, or on the housing of same, shall be recognized as being the work of the members of the Amalgamated Sheet Metal Workers' International Alliance.

Section 2. That all pipe fitting in connection with the above first section shall be recognized as being the work of the steamfitters, members of the United Association of Journeymen Plumbers, Steamfitters and Steamfitters' Helpers.

Section 3. It being thoroughly understood by all of the undersigned that all the assembling and erecting of the work as defined in Section One, shall be the work of the members of the Sheet Metal Workers' International Alliance, excepting pipe fitting of all kinds, which shall be the work of the steamfitters and steamfitters' helpers of the United Association.

Section 4. This agreement shall become effective and in full operation for all parties concerned beginning November 1, 1918.

Signed for Sheet Metal Workers this 9th day of September, 1918:

James Lennon, *Gen. Org.*	Wm. H. Lyons
R. Pattison, *Chm.*	Thos. Walsh
W. M. O'Brien, *Secy.*	Edw. P. O'Neil

Signed for United Association:

E. W. Leonard, *Gen. Org.*	Richard P. Walsh
Charles M. Rau	A. P. Johnson

Leo A. Murphy

Low Pressure Heat

[Subject of dispute between the United Association of Plumbers and Steamfitters and the International Union of Steam Engineers in the matter of maintaining temporary heat while structure is in course of construction.]

Decision—In the matter of the controversy between the engineer and steamfitter on the question of low pressure heat during completion of the heating system, jurisdiction shall rest with the steamfitters until the initial test is completed, immediately after which time, whenever necessary to maintain heat, a stationary engineer shall be employed either by the contractor or the owner.

Pipe Railing or Guards for Enclosures, Stairways, Hatches, Etc.

[Subject of dispute between the Bridge and Structural Iron Workers' International Association and the United Association of Plumbers and Steamfitters. Claimed by the Iron Workers entirely except when not used as a conduit for fluids or vapors; claimed by Plumbers and Steamfitters when of standard sized cut and threaded pipe.]

Decision—Pipe railing, consisting of standard-sized cut and threaded pipe, not used in connection with structural or ornamental iron work, is awarded to the United Association of Plumbers and Steamfitters.

Re-enforced Concrete, Cement and Floor Construction

[Subject of dispute between the Bridge and Structural Iron Workers' International Association and the Wood, Wire and Metal Lathers' International Union.]

Decision—In the matter of the controversy between the Iron Workers and Lathers over re-enforced concrete construction, it is decided that all iron and steel used for re-enforcement in re-enforced concrete, cement and floor construction be awarded to the Iron Workers.

In such cities or localities as are covered by existing agreements with employers awarding Lathers control over re-enforced concrete construction, these agreements are to be maintained inviolate until the date of their expiration, after which this decision shall prevail.

Electrical Work on Elevators

[Subject of dispute between the International Brotherhood of Electrical Workers and the Elevator Contructors' International Union.]

Decision—In the matter of the dispute between the Elevator Contractors and the Electrical Workers on the question of all electrical work on elevators, it is agreed that the electric work on flashlights, electrical annunciators and lamps and feed wires to the controller is awarded to the Electrical Workers. All other electrical work is awarded to the Elevator Constructors in accordance with the conditions under which the charter was issued to the Elevator Constructors' International Union by the American Federation of Labor. Constructors and the Electrical Workers on the question of all electrical work on elevators, it is agreed that the electric work on flashlights, electrical annunciators and lamps and feed wires to the controller is awarded to the Electrical Workers. All other electrical work is awarded to the Elevator Constructors in accordance with the conditions under which the charter was issued to the Elevator Constructors' International Union by the American Federation of Labor.

Vitrolite and Other Opaque Glass

[Subject of dispute between the Bricklayers, Masons and Plasterers' International Union and the Brotherhood of Painters, Decorators and Paperhangers.]

Decision—That in the matter of the controversy between

*Decisions rendered at the meeting on April 26, 1920, were published in the June 9 issue of THE AMERICAN ARCHITECT, and are not here included.

the Painters and Bricklayers on the subject herewith referred to, jurisdiction over the setting of vitrolite and similar opaque glass is awarded to the Bricklayers, Masons and Plasterers' International Union.

Cutting Chases or Channels in Brick, Tile, Masonry, Etc.

[Subject of dispute between the Bricklayers, Masons and Plasterers' International Union and the International Brotherhood of Electrical Workers.]

Decision—That in the matter of the controversy between the Bricklayers and Electrical Workers concerning the question of cutting grooves, channels, chases. etc., the Bricklayers are awarded jurisdiction over the work, except when channels do not exceed two inches by two inches in size or require labor not to exceed eight hours continuous time, in which case the award is in favor of the Electrical Workers.

Note: This decision does not contemplate the channelling or cutting of granite or hard stone.

Light Iron Furring, Brackets, Clips, Hangers, Corner Guards, Beads and Metallic Lath

[Subject of dispute between the International Union of Wood, Wire and Metal Lathers and the International Association of Bridge and Structural Iron Workers.]
[Award of the Denver Convention, Building Trades Department, A. F. of L., adopted November, 1908. See printed proceedings, pages 69 to 71, inclusive.]

Decision—In the matter of dispute between the International Union of Wood, Wire and Metal Lathers and the International Association of Bridge and Structural Iron Workers referred to in the foregoing title the following award is concurred in:

After going into an extended hearing of the jurisdiction claims of both organizations, your committee recommends that the erection and installation of all light iron work, such as light iron furring, brackets, clips, hangers, steel corner guards or beads,* and metallic lathing of all descriptions, belongs solely to the lather.

This does not give the right, however, to the lathers to install or erect any other iron work than as herein specified and outlined.

This decision is based in conformity with the agreement entered into by the national officers of both organizations and endorsed by the Kansas City Convention of Structural Iron Workers and concurred in by the American Federation of Labor.

In supplement of the foregoing decision the Rochester Convention of the Building Trades Department, November 29, 1912, awarded jurisdiction over Hyrib lath to the Wood, Wire and Metal Lathers' International Union.

*Note following decision:

Metallic Corner Beads When Set in Plastic Material

[Subject of dispute between the Operative Plasterers and Cement Finishers' International Association and the Wood, Wire and Metal Lathers' International Union.]

Decision—In the matter of the controversy between the Plasterers and Lathers on the question of the adherence of corner beads by plastic material, it is the opinion of the board that deserved consideration was not given the subject when the previous decision was reached. It is, therefore, agreed that the plasterers are awarded jurisdiction over sticking with plastic material metallic corner beads.

Acetylene and Electric Welding

[Subject of dispute between the trades named in the following memorandum.]

Decision—In the matter of the dispute referred to in the foregoing title, as approved by the Philadelphia Convention of the Building Trades Department, A. F. of L., November, 1914 (see printed procedings, page 99), the following agreement is concurred in:

Representatives of the Electrical Workers, Sheet Metal Workers, Iron Workers, Plumbers and Steam Fitters, and Machinists mutually agred to the following decision:

Each trade to have jurisdiction over all acetylene and electric welding when such process is used to perform the work of their respective trades.

Bronzing and Painting of Radiators and Pipe Connections

[Subject of dispute between the Brotherhood of Painters, Decorators and Paperhangers and the United Association of Plumbers and Steam Fitters.]
[Award of Rochester Convention, Building Trades Department, A. F. of L., adopted November 29, 1912. See page 141, printed proceedings.]

Decision—In the matter of the subject referred to in the foregoing title, the following award is concurred in:

Resolved, That the United Association of Plumbers and Steam Fitters be and is instructed to require that its affiliated unions desist from further trespass upon the jurisdiction of the Brotherhood of Painters, Decorators and Paperhangers of America, and when and where necessary to notifiy their employers that neither journeymen nor helpers will be permited to do this work.

Cork Tiling, Laying or Setting Of

[Subject of dispute between the United Brotherhood of Carpenters and Joiners and the Bricklayers, Masons and Plasterers' International Union.]

Decision—In the matter of the dispute referred to in the foregoing title, the following agreeemnt is concurred in:

Agreement entered into this 14th day of October, 1913, by and between representatives of the United Brotherhood of Carpenters and Joiners, and representatives of Bricklayers, Masons and Plasterers' International Union.

Jurisdiction is hereby conceded the Bricklayers, Masons and Plasterers' International Union to the laying or setting of all cork tiling when laid or set in any composition of sand and Portland cement.

Jurisdiction is hereby conceded the United Brotherhood of Carpenters and Joiners to the laying or setting of all cork tiling when laid or set in any composition of glue or when nails or brads are used in laying above referred to cork tiling.

Application of Damp-Resisting Preparations and Waterproofing

[Subject of dispute between United Slate, Tile and Composition Roofers, Damp and Waterproof Workers' Association, and the Brotherhood of Painters, Decorators and Paperhangers.]

Decision—In the matter of dispute referred to in the foregoing title under the following agreement is concurred in:

Agrement entered into by and between the Brotherhood of Painters, Decorators and Paperhangers of America and the United Slate, Tile and Composition Roofers, Damp and Waterproof Workers' Association.

First. That the painters do not claim the right to apply any of the material claimed by the United Slate, Tile and Composition Roofers, Damp and Waterproof Workers' Association except such material as is applied by a brush that is ordinarily used by the painters in applying the materials covered in their jurisdiction.

Second. That the United Slate, Tile and Composition Roofers, Damp and Waterproof Workers' Association does not claim the right to apply any of the material in dispute except when applied by or with a three-knot, long-handled brush, mop or swab, and spray system employed therein.

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MARBLE AND SLATE PARTITIONS, BACKS AND FLOOR SLABS FOR URINAL STALLS, CLOSETS AND SHOWERS, SETTING OF

[Subject of dispute between the Bricklayers, Masons and Plasterers' International Union and the United Association of Plumbers and Steam Fitters.]

[Award of Rochester Convention, Building Trades Department, A. F. of L., adopted November 28, 1912. See page 132, printed proceedings. Award of Buffalo Convention, November 9, 1917. See page 92, printed proceedings.]

DECISION—In the mateer of the subject refered to in the foregoing title, the following award is concurred in:

Resolved, That the setting of floor slabs, backs, partitions of urinal stalls, closets and shower baths properly belong to the Bricklayers, Masons and Plasterers' International Union.

The foregoing decision does not concede to the Bricklayers the right to install marble work that is connected with the water supply or sewer or watertight work regularly catalogued as plumbing fixtures.

MUSLIN AND CANVAS FOR DECORATIVE PURPOSES, TACKING OF

[Subject of dispute between the Brotherhood of Painters, Decorators and Paperhangers and the I. A. Heat and Frost Insulators and Asbestos Workers.]

[Award of Buffalo Convention, Building Trades Department, A. F. of L., adopted November 10, 1917. See page 108, printed proceedings.]

DECISION—In the matter of the subject referred to in the foregoing title, the following award is concurred in:

Resolved, That this convention notify and instruct the officers of the Asbestos Workers' International Union that the tacking of all muslin and canvas for decorative purposes is the jurisdiction of the Brotherhood of Painters and that they instruct their members to refrain from doing any of this work.

PILE DRIVING MACHINERY AND ENGINES, OPERATION OF

[Award of Buffalo Convention, Building Trades Department, A. F. of L., adopted November, 1917. See pages 59 and 105, printed proceedings.]

DECISION—In the matter of the subject referred to in the foregoing title the following award is concurred in:

Such workmen as are employed in the operation of engines or machinery in connection with a pile driver come under the jurisdiction of the International Union of Steam Engineers.

SHEET METAL GLAZING FOR SASH, FRAMES, DOORS, SKYLIGHTS, ETC.

[Subject of dispute between the Brotherhood of Painters, Decorators and Paperhangers and Amalgamated Sheet Metal Workers' International Alliance.]

DECISION—In the matter of dispute referred to in the foregoing title the following agreement is concurred in:

Agreement entered into by and between the General Executive Board of the Brotherhood of Painters, Decorators and Paperhangers of America, and the Amalgamated Sheet Metal Workers' International Alliance, shall take effect December 1, 1910, and remain in force until amended, revised or changed, at a meeting between the representativs of both organizations called for this purpose.

Section 1. It is agreed by both parties to this agreement that all glass set in sheet metal sash, frames, doors, or skylights shall be set by members of the Brotherhood of Painters, Decorators and Paperhangers of America, according to their claim of jurisdiction granted by the convention of the Building Trades Department, A. F. of L., at St. Louis, December, 1910; and that all sheet metal work on sheet metal sash, frames, doors, or skylights shall be done by the members of the Amalagamated Sheet Metal Workers' International Alliance.

Section 2. In localities where differences now exist or may arise in the future, such differences shall be adjusted by a committee appointed by and representing the district councils or local unions of both organizations in that locality. Should this committee be unable to agree, a representative of the General Executive Board of each organization shall be called in to assist in the adjustment.

Section 3. It is also agreed that the national officers of both organizations where local unions fail to agree shall insist that this agreement be carried out by affiliated unions.

SLATE TREADS WHEN SET ON IRON STAIR CASE

[Subject of dispute between Bricklayers, Masons and Plasterers' International Union, and the International Association of Bridge and Structural Iron Workers.]

DECISION—In the matter of dispute referred to in the foregoing title the following award is concurred in:

Slate treads on iron stairs having provoked a dispute in jurisdiction between the organizations above named was submitted to the Executive Council November 29, 1909. The action taken follows:

The Executive Council of the Building Trades Department, on being called upon for a decision, awarded the work in question (slate treads) to the Bricklayers, Masons and Plasterers' International Union.

LOADING AND ULOADING MATERIALS FOR REINFORCED CONCRETE CONSTRUCTION.

[Subject of dispute between the International Hod Carriers, Building and Common Laborers' Union and the International Association of Bridge and Structural Iron Workers with special reference to the loading and unloading of material as applied to reinforced concrete construction.]

Decision—In the matter of the dispute between the Laborers and Iron Workers:

It is the decision of the Board that the loading, unloading, carrying and handling of all rods and material for use in reinforced concrete construction shall be done by the laborers under the supervision of such person as the employer may designate. The hoisting of rods, xcept when a derrick or outrigger is used, shall be done by laborers, this decision to apply only to the character of work stipulated herein. In such localities where existing agreements provide otherwise, this decision is to become effective at the expiration thereof.

RETOUCHING CONCRETE WORK.

[Subject of dispute between the International Hod Carriers, Building and Common Laborers' Union and the Operative Plasterers and Cement Finishers International Association relative to Defects In Concrete Caused by Leakage, Bulging, Sagging, etc., through Defective Or Shifting Forms.]

Decision—In the matter of the dispute between the Laborers and Plasterers and Cement Fnishers:

It was decided that where finishing tools are not used or required the work shall be done by the laborer. The filling of voids or other work requiring patching where finishing tools are required shall be done by the cement finisher.

The next meeting of the Board will be held at Washington, D. C., on November 29, 1920.

Patent Decision on Flat Slab Design

A recent patent decision of interest is that of the Examiner in Chief on Appeals which allows the claims in full of the application for a patent for the improvement in building construction filed July 18, 1911. This patent covers the broad use of the combination of "two way" and "four way" flat slab reinforcing consisting of running the bottom slab bars both directly and diagonally between the columns while the steel in the top of the slab, over the column head, extends in two directions only. This top steel may consist either of fabricated units, loose bar units or of the bent up ends of the bottom slab steel belts extending directly between columns.

The patents are owned by the Barton Spider-Web System, Inc., of Chicago.

(*Continued from page 350*)

H. Pohlmeyer, N. P. Rice, J. P. Kefalos, T. A. Lynch, C. W. Hunt and C. L. DePrefontaine, Carnegie Inst. of Technology, Pittsburgh; O. T. Obel, H. R. Kaplan, A. I. Berkow, B. H. Bickel, A. E. Egeressy, C. Contreras, F. L. Hutchins and S. Dresser, Columbia Univ., N. Y. C.; C. G. deNeergaard, G. H. Gibson, H. E. Maddox, Jr., W. A. Robison, W. H. Merriam ,R. P. Bell and J. Y. Arnold, Georgia Sch. of Technology, Atlanta; F. J. Brince and E. Olsen, Atelier Hirons, N. Y. C.; E. Babitsky and E. C. Rising, John Huntington Poly. Inst., Cleveland; L. Rombotis, Los Angeles Archtl. Club, Los Angeles; D. Earle, Patron-R. M. Hood, N. Y. C.; A. Gambell, Portland Archtl. Club, Portland, Ore.; M. Sillani, Atelier Parsons-Chicago Archtl. Club, Chicago; W. R.Fisher, E. A. Beihl and K. C. Albright, "T" Square Club, Phila.; E. M. McGinnis, Thumb Tack Club, Detroit; P. E. French, Jr., and Elizabeth Ayer, Univ. of Washington, Seattle; H. F. Neville, R. R. Hibbs, L. F. Soxman and H. E. Machamer, Univ. of Kansas, Lawrence; B. F. Miller, Univ. of Minnesota, Minneapolis; G. M. Trout, Univ. of Texas, Austin; W. L.Siebel and G. A. Daidy, George Washington Univ., Wash., D. C.; E. Penfield, Atelier Wynkoop, N. Y. C.

H. C.: C. J. Pellegrini, R. V. Murison, J. O. Cahill and K. Snow, Carnegie Inst. of Tech., Pittsburgh; W. M. Dowling, Atelier Corbett-Gugler, N. Y. C.; D. W. Murphy and L. Hamilton, Yale Univ.-Sch. of Fine Arts, New Haven; P. Goodman, Atelier Licht, N. Y. C.

SUPPLEMENTARY JUDGMENT OF APRIL 13, 1920.
CLASS "A"—IV PROJET.
"A RAILROAD STATION PLAZA."
NUMBER OF DRAWINGS SUBMITTED: Three.
AWARDS:

Second Medal: G. S. Underwood, Yale Univ.-Sch. of Fine Arts, New Haven.

Mention: O. Wilkins and R. B. Thomas, Yale Univ.-Sch. of Fine Arts, New Haven.

CLASS "A" AND "B" ARCHAEOLOGY—III PROJET.
"A BANQUET HALL IN A MEDIEVAL CASTLE."
NUMBER OF DRAWINGS SUBMITTED: One.
AWARD:

Mention: A. C. Smith, Yale Univ.-Sch. of Fine Arts, New Haven.

Note: These drawings were delayed in transit.

Current News

Happenings and Comments in the Field of Architecture and the Allied Arts

Albany Builders Organize

A meeting of the builders of Albany, Troy and Schenectady formed an organization to be known as the Tri-City Builders' Exchange Council with the object of protecting and promoting the building business. The council expressed itself as particularly anxious to secure harmonious relations between the builders and their employes and between the builders and the architects.

Conservation of Material Studied

A technical committee of the National Federation of Construction Industries finds that archaic building codes demand large quantities of superfluous materials because of too stringent rulings in the cause of safety, thus unnecessarily increasing the cost of construction.

To expose this situation and aid in leveling the building codes to a safe and sane position, the Techical Committee of the Staff Council of the National Federation of Construction Industries is inaugurating an important study of the situation throughout the country. The executive committee are preparing this study and will shortly issue a tabulation showing the stresses allowed by the Bureau of Standards and other authorities. Against this will be shown the building ordinance requirements of the various cities.

One feature of the work that is developing already is the more sane requirements adopted by the lately framed building codes, indicating that a full understanding of the technique of use of various materials is rapidly being appreciated and no extra useless material is being required by the more modern codes.

It is not the plan of the committee to determine the proper stresses, but to compile them so that building and government officials may have a bird's-eye view of the situation and the building industry in the various cities may realize how much valuable material is being required for extra and unnecessary strength. Waste of this kind must stop and this committee will soon place the facts before the public.

Housing in Philadelphia

"The indications are that this year will not be as bad as last," says John Ihlder, secretary of the Philadelphia Housing Association, in his statement to the councilmen who are studying the housing question. "Families are moving away," he said, "because

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they cannot find places in which to live. But for all that, Philadelphia is very much underbuilt and unless constructive measures are taken soon we shall have a great and permanent increase of insanitary, unfit and overcrowded housing.

"Philadelphia's housing situation is frequently compared to New York's. But there are important differences. We had a larger proportionate increase of population during the war than did New York, yet we absorbed it more successfully for two reasons. First, most of our people live in single family houses and had a room or two more than they absolutely required. So they were able to take in relatives or roomers. Second, during and since the war the federal government erected several thousand houses in and around Philadelphia which have somewhat relieved the pressure.

"In Pennsylvania it is held that neither the state nor municipality has constitutional power to buy land for housing purposes or to erect dwellings. Experience makes it doubtful whether the government should itself build and manage houses, but seems to show that there is possibility of relief if the government can take land at a proper value and make loans to limited dividend house-building companies under definite restrictions."

India to Exploit Its Forests

India is a little less than half the size of the United States. It possesses untold timber wealth. In only one section, the Province of Burma, has there been in operation any mills sawing lumber. In every other portion of the country all lumber has been whipsawed by hand out of the tree. Teak is at the present time the wood mostly used in producing lumber because teak is the only wood that will resist the attacks of the white ants of India This timber grows along the coast lines, and in the Province of Burma alone there remain untouched nearly thirty million acres of timber land.

Starting on the sides of the hills, at an altitude of from 580 to about 3,000 feet is found the hardwood and this will be the first species of timber to be exploited, owing to its accessibility. The logs will be brought down the hills to the waterways. From about 5,000 feet altitude to 11,000 feet are found the coniferous woods with the snow line of the mountains about 14,000. Owing to their great distance to tidewater these forests will not be used as yet.

The timber of India will be operated upon a gigantic system of conservation. None but the large timber will be cut at any time and the methods of logging will be so developed as to insure the least damage to the smaller trees. This is possible in that country as it has never been possible in America, owing to the title to the timber lands being vested in the state and the operations, therefore, conducted by the state on one national system.

No Chimneys Needed

In describing the Minidoka project in the state of Idaho, Franklin K. Lane writes in the Geographic Magazine: "Here I saw a town where there never has been a fire lighted and some houses without fireplaces and without chimneys. No fires were necessary because at the dam above the town the water had been stored to irrigate the land and at the dam electricity was generated for use as heat, light and for cooking. The women churned with electricity and the sewing machines were run with electricity."

Bridges Surround New Construction Jobs to Protect Public

Thousands of dollars are spent today by the better New York construction companies to build bridges in front of their building jobs to protect the public from accident and annoyance.

Until very recently the erection of a big building, even on a plot 50 by 100 feet, entailed no end of annoyance and danger to not only pedestrians but vehicular traffic.

The sidewalks were almost impassable, while the street was littered with sand barrels, timber and steel.

Today, however, every possible consideration is given to the welfare and comfort of the public, with the result that buildings appear and are up several stories before the public is aware that the job is well under way.

The excavation is marked by a high fence, and those who are obliged to pass the spot are protected from dust and dirt by a carefully constructed covered bridge extending from building line to curb.

These bridges, which are constructed of heavy timbers, are faced with painted boards. They are lighted with electricity, and the sidewalks under them are constantly swept and kept free of debris by men assigned to this work alone.

Doorway Without a Door

"Doorless doors," that make flyscreens unnecessary and keep out rain and snow without other agency than that of a properly directed air current are described by H. S. Knowlton in *Electrical Merchandising* (New York). They are the invention, he says, of a Boston mechanical engineer, Henry H. Cummings, who is also the inventor of the ship log

which was generally installed on vessels of the United States Navy during the war. We read:

"The 'doorless door' consists of a motor-driven fan installed below or behind a grill in the entrance of a store or other building and arranged to draw air downward from the upper portion of the doorway, whence it is carried by a duct to a hood at the top of the entrance and then discharged downward, completing the cycle. A quarter-horse-power motor driving a 16-inch fan and connected with a 9-to-12-inch diameter duct provides a current of air under about 3-inch water pressure, which is unnoticed by persons standing in the doorway, but which is most effective in keeping out insects, snow and cold air. The use of the equipment enables close regulation to be made with ease, of the interior temperature of the room, and the absence of a closed door, winter and summer, in a trial installation, actually increased trade by one-third. The cost of operation is about two cents per hour."

Industrial Reconstruction in Northern France

Of the manufacturing establishments employing at least twenty persons in the war area of France 74.8 per cent. had resumed business on May 1, according to the Statist (London). Few of these are as yet able to transact business on the pre-war scale. The difficulties surrounding the rebuilding of factories, and the engagement of suitable staffs have been overcome, however, with skill and expedition. But it is not surprising to find that, although three-quarters of the establishments have resumed business, the labor employed in this district is but 40 per cent. of the pre-war figure. The personnel engaged in these plants in 1914 was 679,188; in May it was 257,874. There are engaged in restoration work in these districts 82,128. The clothing industry is in the best condition and the mines and quarries are in the worst.

Railway Executive Urges Priority for Building Materials

Daniel Willard, president of the Baltimore and Ohio Railroad, testifying before the Senate Committee on Reconstruction and Production here today, suggested that all large cities appoint committees to determine what building materials should be given priority in the use of transportation facilities and to advise with the Interstate Commerce Commission and the carriers to put needed priorities into effect.

Mr. Willard, who is chairman of the advisory council of the Association of Railway Executives, said the roads would like to co-operate with the big and congested communities where attempts are being made to meet critical housing situations.

Bridge Into Juneau Park, Milwaukee

In the spring construction will be begun on the bridge across the tracks of the Northwestern R. R. at Milwaukee, designed by A. C. Clas, architect. This bridge will connect Mason and Wisconsin street with the reclaimed portion of Juneau Park. The structure will be of reinforced concrete faced with red granite, one long span of 120 feet and two short spans to support the approaches. It will support a boulevard 85 feet wide.

Building Codes to Demand Rat Proof Houses

Standard plans for rat-proofing business buildings, dwellings and wharves are being drawn up by the public health service as part of its campaign to stamp bubonic plague out of the country. The plans are to be furnished to states and cities for incorporation in building codes.

"While bubonic plague is under control in this country, there will always be scattered infection until the rat can be exterminated," said Surgeon General Cumming.

"According to authoritative estimates, there is one rat for every one person in the United States. To maintain this huge number of rats costs the people of this country approximately one cent per person every day for rat food, an intolerable and unnecessary burden for the people to carry."

To Keep Vienna's Art in Vienna

There has been much talk since the armistice of the probable forced disposal of Austria's art treasures, many of them the finest works of art in existence, which before the war were housed in Vienna's public and private galleries. Some of them have already actually changed hands, and many have been the attempts of dealers everywhere to benefit by Austria's need for money and food, to procure her works of art.

Many proposals have been made for preventing this forced sale and dispersal, and one which seems to meet with both British and Austrian approval, according to the *London Post,* is Earl Curzon's suggestion in the House of Lords that Vienna's works of art should be pledged as security for food from England. This magnanimous offer was warmly welcomed by Herr Enderes, under secretary of State

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and Chief of the Commission for Utilization of Works of Art, and it is understood that Earl Curzon's scheme has been or is about to be carried out.

A commission of British art experts was recently sent to Vienna to value the collections in order that a basis for the arrangement might be decided upon. Their report has not yet been made public.

News From Various Sources

In Karachi, India, the Karachi Building & Development Co., Ltd., has been capitalized at about $3,250,000. It plans to include in its management: architectural, engineering and constructional experts; and in its equipment steam and electric plants.

J. P. Morgan & Co. have acquired the Mills Building which adjoins their bank on the corner of Wall Street, New York, and plan its rebuilding when building conditions become more stabilized. Trowbridge & Livingston are the architects.

Thomas M. James, architect of Boston, Mass., announces that his office is now incorporated under the name of Thomas M. James Co., with offices at 3 Park street, Boston, Mass.; American Trust Building, Cleveland, and Fuller Building, Springfield, Mass.

The partnership is announced of Marzillier & Chromaster, architects and engineers, with offices at 211 Reporter Building, Milwaukee, the members being C. O. Chromaster and Paul Marzillier. (Manufacturers' catalogues are requested.)

Weekly Review of the Construction Field

With Reports of Special Correspondents in Prominent Regional Centers

IN a voluminous report issued by the Committee on Statistics and Standards of the Chamber of Commerce of the United States, it is stated that in the opinion of the committee there is wide-spread feeling that business will probably continue good for the remainder of the year.

Tight money, labor unrest and the high cost of necessities are at present disturbing business factors, but there is no need, states the report, to become panicky over these matters.

While the opinion of an authoritative body lends stability to the trend of public feeling, it must be acknowledged that surface indications are not altogether reassuring. The unwillingness of banks to finance the smaller housing operations accents the already acute situation, the outlook in the anthracite fields does not encourage an altogether placid view of cold days of the coming winter, while in all our large cities labor is uneasy and in some instances as, for example, the present traction strike in Brooklyn, is ignoring their contract with employers and by strikes and unwise methods adding to the general uneasiness.

Amid all the cross currents and eddies of the industrial situation a definite trend seems to be slowly developing toward a gradually increasing gain of supply upon demand and a somewhat lower level of prices. In textiles and in some manufacturers of leather there has been a decrease in production and lower prices.

Here and there mills have shut down. Here and there they are running on reduced time. It is a scattered and local matter rather than a general proposition. What will happen next is exciting much interest and many prophecies on both sides of the question.

Construction and building have slowed down, because of many things—such as high prices and scarcity of both labor and materials—practical withdrawal of credit accommodations on new constructions. Some essential materials of building are very scarce. Cement and wire nails for instance. Lumber can be had, but cars for transportation of it cannot.

From every state and every section comes the complaint of the lack of cars as greatest of all handicaps to the transaction of business, and one of the moving causes of the continuance of high prices.

The railroads are endeavoring to bring order out of the choas of conditions they confronted when the Government turned back the lines to their owners. It is agreed that the most practical and duickest solution of the transportation problem is to give the maximum of service from existing facilities.

An average daily minimum movement of freight cars of not less than thirty miles per day is the aim first stated in the program of the railroads for more

transportation. To increase the average loading of cars to thirty tons per car is the second aim of this program.

Statistics show that the average car loading on all railroads in the United States is only about 70 per cent. of the carrying capacity of the car. Furthermore, about 32 per cent. of the total freight-car mileage is made with empty cars. An average increase of only one ton per each loaded car would be equivalent to the addition of 80,000 new cars to the available supply.

The average loading per loaded freight car in 1919 was 27.8 tons. If this average were raised to 30 ton, it is estimated that the total ton mileage would be increased from 395,000,000,000 to 426,000,000,000. This great increase would be accomplished without any other change in handling of cars than is involved in the increased load.

The combined effect of increased daily mileage to 30 miles and of loading each car to 30 tons, would be to increase the capacity of the railroads to 553,000,000,000 ton miles.

In many current discussions of the probable course of the deflation which appears to have begun it is quite commonly said that wages and prices must come down together, some writers even going so far as to assert that wages must come down before commodities can decline. It may be helpful in considering this question to study the actual experience of two war periods concerning which reasonably accurate statistics are available; namely: the Napoleonic war period in England and the Civil War period in this country.

After the Napoleonic war prices in England declined, at first rapidly, and then steadily over a long period of years, while wages receded not only more gradually but much less. During the thirteen years following the Civil War prices in currency dropped rapidly, while for seven years wages actually rose.

While unquestionably in the years following the European war the law of supply and demand will operate with respect to labor as well as to commodities, in labor the law operates less promptly and freely. It is, of course, impossible to predict the future, but two things should be remembered at this time; that labor is now much better organized to resist wage reductions than it was in either 1815, 1865, and that since 1914 the United States has received about 3,000,000 less immigrants than would normally have entered the country.

The monthly statement of the Federal Reserve Board, issued on September 1, says that the situation in lumber and building materials is variable. The expectation that heavy buying would develop in anticipation of higher freight rates has been disappointed. Stocks are small in numerous quarters. Near Atlanta the lumber market is dominated by the transportation situation. The curtailment of production is becoming more geenral, but apart from a continuous scarcity of cars the immediate outlook is satisfactory. In the Middle West high costs of lumber, mill work and other materials have seriously retarded building. In Kansas City the lumber and material markets have been inactive, with lowered demand, due to unsatisfactory distribution. In New England dwelling house construction is still backward, partly due to the increased cost of material and labor. On the Pacific Coast car shortage has restricted lumbering operations, and 20 per cent. of the mills are closed, while those that are running are operating at only 75 per cent. capacity. Building, however, is active. From Minneapolis it is reported that the lumber cut and shipped by producers increased about 50 per cent. during the month. The labor situation is reported generally favorable.

(By Special Correspondence to The American Architect)

SEATTLE.—The new freight rates caused a horizontal advance in all steel building materials on the Pacific Coast of 50 cents per hundred pounds and there was a slight mill advance on nails and pipe which has not yet reached the jobbing trade. The new freight rate is also back of this. Jobbers estimate that the advance at the mill will approximate 25 per cent. Protection to themselves is the reason given by the jobbing trade for the new quotations.

The new continental freight rates have brought other distributive problems to the jobbers in the building trades for immediate solution. The railroads have proposed to raise the distributive rate for building materials 100 to 125 per cent., in addition to the Interstate Commerce advance, and claiming that such a burden would be "spotted" in its effect and not only ruinous to the jobbing interests, but would effectually stop all building projects, jobbers have secured a halt in the application of the rule. In the meantime, the local distributive rate has advanced 25 per cent., to which jobbers have made no objection. Jobbers in building materials insist upon competitive rates and conditions.

Aside from the advance in freight rates there has been no lift in quotations warehouse basis for steel building materials. Small nails are so scarce in the Pacific Coast territory that fruit shippers have been compelled to use finishing nails to build crates. Colorado mills seem to be in much better condition for delivering than the East. New prices will be $1.50 per cwt. for three-penny nails, against the former price of 75 cents, and four-penny nails will be 80 cents, against 50 cents as before. The mills reiterate that this rise is due to industrial conditions and the difficulty of getting and keeping skilled labor on the job. It is predicted by the jobbing trade of the Pacific Coast that while metal prices may not soon

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advance the possibility of recessions is remote.

There is but a slight inquiry for bars and channel iron, but department heads, who pass upon these inquiries, say the stock is for manufactured products rather than building.

Brick, fire, common and face, is stationary, with no great demand. Wall plaster board declined $10 to $15 per thousand feet warehouse basis, due to freedom of offerings and a none too brisk demand. Plaster is very scarce and jobbers have practically been compelled to fight for possession. The bulk of the orders from the Coast are being filled in Nevada and Utah. Manufacturers assert that labor troubles, strikes and unrest are crippling production over and above the delays caused by inadequate car supply. Loadings at shipping points do not arrive under 30 days. Shortage of retarder is also holding back delivery.

Metal lath is steady, with light inquiry. Demand is now exclusively for built-for-sale buildings of two stories and less. Fir lath is steady at $7.50, but the jobbing trade reports a higher grade of the product. Arrivals of cement are slow, and the orders are far in excess of the supply.

Eastern mills now explain that delay in delivery of small sizes of steel pipe on the Coast is due to shortage of fuel, made necessary by the inadequate car supply in hauling raw products to the mills. Jobbing houses on the coast have refused to affirm any more orders for pipe on the carload basis.

Enamelware has advanced 10 per cent. Pipe stocks are light all along the Coast. Elger's earthenware is 10 per cent. higher.

The fir lumber market in the West Coast producing territory is barely steady. The new freight rate advance in the eastern and middle western territory is held to be discriminatory in favor of southern pine and wholly a shut-out and a barricade against the fir mills. Until the carriers themselves make a fight to restore equality and competitive conditions the mills will absorb the freight advance. There have been many cancellations of back orders for fir to move into the eastern building territory and more are expected, although the fir mills still hold orders for 8,479 cars, 30,000 feet to the car, for eastern building account.

Probably the most weakening future factor in the fir lumber trade is that stocks at the mills are 45 per cent. over normal. The bulk of these storages consist of dry dimension, well suited to underweights, that must be loaded and shipped before the rainy season of the North Pacific territory sets in.

(By Special Correspondence to The American Architect)

CHICAGO.—The Chicago committee recently appointed by the United States Senate Committee on Construction to co-operate with the railroads in this city in an attempt to hasten the movement of building materials finds itself with nothing to do. According to Mr. C. F. Perkins, of the Illinois Brick Co., who represents the brick interests on the committee "the act came too late."

Only four complaints have been brought to the attention of the committee, and these were from the same company. No complaints of delay in delivery have been registered by builders of house or apartments and no architect has appeared before the committee so far.

"On the surface this would indicate that the grievances of the construction industry against the roads had been exaggerated, but the real reason in the lack of work for the committee is plain: Building, outside of streets and a few public buildings, has practically ceased in Chicago, and it is my opinion that within the next sixty days the work will come to a complete standstill.

"The only thing that can save the industry now is money and, more than that, easier and cheaper money. The apparent apathy of builders and contractors with regard to new housing needs and new construction is explained when their inability to get credit is considered, or in the event of getting a loan, the enormous rate of interest demanded."

Mr. Perkins, with others of the industry, think it is "up to" the banks now. Labor is plentiful, transportation conditions have improved, individual output has increased to almost that of the pre-war basis, so that, even with the handicap of increased freight rates the building industry would take on new life if money was easier to obtain.

With $150,000,000 in building projects in Chicago tied up and scores of building plans tucked away on the shelf, the time for talking is past.

Mr. Adolph F. Kramer, president of the Chicago Real Estate Board, believes that concessions by all building interests would result in a boom of apartment and house building. To that end he recently called a meeting of the leading building materials, building labor, real estate and mortgage banking men of Chicago in an attempt ot cut building costs.

It is time that real estate, building, labor and financial interests realize that some of the profits must be eliminated and the cost of construction lowered before the necessary home building can be accomplished.